

FILE 'REGISTRY' ENTERED AT 22:59:53 ON 12 AUG 2003

L1 0 S LYSOPHOSPHATIDIC ACID/CN  
L2 0 S PHOSPHATIDIC ACID/CN  
L3 98 S LYSOPHOSPHATIDIC ACID  
L4 194 S PHOSPHATIDIC ACID

FILE 'CAPLUS' ENTERED AT 23:08:12 ON 12 AUG 2003

L5 49430 S HIS  
L6 10 S 22002-85-3/USES  
L7 48 S 22002-85-3/BIOL  
L8 20 S 22002-86-4/BIOL  
L9 5 S 22002-86-4/USES  
L10 1 S 22556-62-3/BIOL  
L11 1 S 22556-62-3/USES  
L12 13 S 22002-87-5/USES  
L13 78 S 22002-87-5/BIOL  
L14 104 S L6-L13  
L15 1 S L14 AND (HAIR (3A) GROW?)

FILE 'USPATFULL' ENTERED AT 23:17:10 ON 12 AUG 2003

L16 0 S 22002-87-5  
L17 10 S 22002-87-5/RN  
L18 1 S 22556-62-3/RN  
L19 10 S 22002-87-5/RN  
L20 2 S 22002-86-4/RN  
L21 7 S 22002-85-3/RN  
L22 11 S L17-L21  
L23 250819 S LYSOPHOSPHATIDIC OR LYSOPHOSPHATE OR PHOSPHATIDIC OR PHOSPHAT  
L24 11394 S STEROYL? OR PALMITOYL? OR OLEOYL? OR OLEIN OR PALMITIN OR STE  
L25 250820 S L22-L23  
L26 1495 S L25 (1S) L24  
L27 0 S L26 (3S) (HAIR (5A) GROW?)  
L28 16 S L26 (3S) (HAIR? )

FILE 'REGISTRY' ENTERED AT 23:30:16 ON 12 AUG 2003

L29 STRUCTURE UPLOADED  
L30 503 S L29 SSS FULL

FILE 'CAPLUS' ENTERED AT 23:31:37 ON 12 AUG 2003

L31 1617 S L30  
L32 6 S L31 (L) HAIR

=> save all

ENTER NAME OR (END):110049268/1

L# LIST L1-L32 HAS BEEN SAVED AS 'L10049268/L'

L32 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:814656 CAPLUS  
 DN 137:315733  
 TI Hair growth stimulants containing phosphatidic acids  
 IN Kamimura, Ayako; Takahashi, Tomoya; Mimura, Takashi; Honda, Shinkichi  
 PA Kyowa Hakko Kogyo Co., Ltd., Japan  
 SO U.S. Pat. Appl. Publ., 10 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM A61K007-075  
 NCL 424070230  
 CC 62-3 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002155085	A1	20021024	US 2002-73107	20020212
	US 6562803	B2	20030513		
	JP 2002316918	A2	20021031	JP 2002-32420	20020208
	EP 1252878	A2	20021030	EP 2002-3131	20020214
	EP 1252878	A3	20030312		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	JP 2001-40350	A	20010216		
OS	MARPAT 137:315733				
AB	The present invention provides a hair-growth stimulant comprising, as an active ingredient, a phosphatidic acid contg. straight-chain alkyl having an odd no. of carbon atoms, a straight-chain alkenyl having an odd no. of carbon atoms, or a straight-chain alkynyl having an odd no. of carbon atoms. Thus, a compn. contained 1-O-oleoyl-2-O-acetylglceryl-3-phosphoric acid 0.4, EtOH 70, 1,3-butylene glycol 3, N-acetylglutamine isostearyl ester 0.25, and PEG glyceryl pyroglutamate isostearate 0.25%. The hair growth agent, a phosphatidic acid, showed a significant promoting effect on the hair growth of mice.				
ST	phosphatidic acid hair growth stimulant				
IT	Hair preparations				
	(growth stimulants; hair growth stimulants contg. phosphatidic acids)				
IT	Hair				
	(hair growth stimulants contg. phosphatidic acids)				
IT	Phosphatidic acids				
	Proanthocyanidins				
	Tocopherols				
	RL: COS (Cosmetic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(hair growth stimulants contg. phosphatidic acids)				
IT	<b>109715-96-0P</b>				
	RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(hair growth stimulants contg. phosphatidic acids)				
IT	58-85-5, Biotin 58-95-7, D-.alpha.-Tocopherol acetate 59-02-9, D-.alpha.-Tocopherol 79-83-4, Pantothenic acid 79-83-4D, Pantothenic acid, derivs. 81-13-0, D-Pantothenyl alcohol 137-08-6, Calcium Pantothenate 667-83-4, Pantothenyl ethyl ether 867-81-2, Sodium Pantothenate 1404-26-8, Polymyxin B 1935-18-8, Palmitoyl-DL-carnitine 10191-41-0, DL-.alpha.-Tocopherol 16485-10-2, DL-Pantothenyl alcohol 20315-25-7, Procyanidin B1 23567-23-9, Procyanidin B3 29106-49-8, Procyanidin B2 37064-30-5, Procyanidin C1 37064-31-6, Procyanidin C2 38304-91-5, Minoxidil 51898-34-1, DL-.alpha.-Tocopherol nicotinate 52225-20-4, DL-.alpha.-Tocopherol acetate 58066-85-6, Hexadecylphosphocholine 121263-19-2, Calphostin C 471907-74-1				

471907-75-2 471907-76-3 471907-77-4

472967-99-0 472968-00-6

RL: COS (Cosmetic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hair growth stimulants contg. phosphatidic acids)

IT 84746-00-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair growth stimulants contg. phosphatidic acids)

IT 141436-78-4, Protein kinase C

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(inhibitors; hair growth stimulants contg. phosphatidic acids)

IT 109715-96-0P

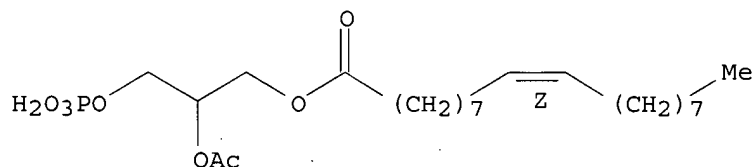
RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(hair growth stimulants contg. phosphatidic acids)

RN 109715-96-0 CAPLUS

CN 9-Octadecenoic acid (9Z)-, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 471907-74-1 471907-75-2 471907-76-3

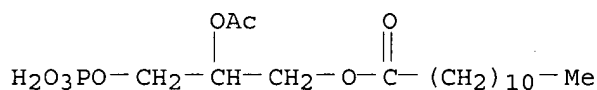
471907-77-4 472967-99-0 472968-00-6

RL: COS (Cosmetic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hair growth stimulants contg. phosphatidic acids)

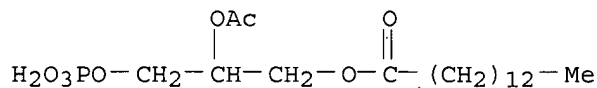
RN 471907-74-1 CAPLUS

CN Dodecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)



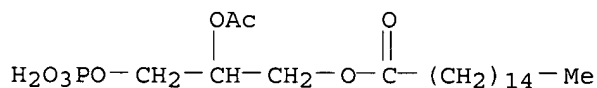
RN 471907-75-2 CAPLUS

CN Tetradecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)

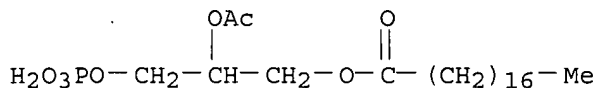


RN 471907-76-3 CAPLUS

CN Hexadecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)



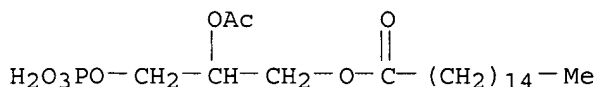
RN 471907-77-4 CAPLUS  
 CN Octadecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA  
 INDEX NAME)



RN 472967-99-0 CAPLUS  
 CN Hexadecenoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA  
 INDEX NAME)

CM 1

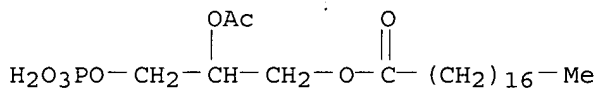
CRN 471907-76-3  
 CMF C21 H41 O8 P



RN 472968-00-6 CAPLUS  
 CN Octadecenoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA  
 INDEX NAME)

CM 1

CRN 471907-77-4  
 CMF C23 H45 O8 P



L32 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:235518 CAPLUS  
 DN 134:256599  
 TI Hair tonics containing hair growth stimulants and plant extracts  
 IN Nishizawa, Hiroaki; Kono, Tomoko  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-06  
 ICS A61P017-14  
 CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001089331	A2	20010403	JP 1999-264236	19990917
PRAI	JP 1999-264236		19990917		

AB Hair tonics contg. hair growth stimulants and Rehmannia ext., Zizyphus ext., Ganoderma ext., Luffa ext., Poria ext., and/or Crataegus ext. The plant exts. activate hair papilla, thus the hair tonics show synergistic hair growth-stimulating effect. Thus, a EtOH soln. contg. 2.5% pentadecanoic acid monoglyceride and 2.0% G. lucidum enhanced hair growth

in mice.

ST hair tonic glycerin pentadecanoate Ganoderma ext; Rehmannia Zizyphus Luffa  
ext hair tonic; Poria Crataegus ext hair tonic

IT Hair preparations  
(growth stimulants; hair tonics contg. hair growth stimulants and plant  
exts.)

IT Ganoderma  
Ganoderma lucidum  
Hawthorn (Crataegus)  
Hawthorn (Crataegus cuneata)  
Jujube (Zizyphus)  
Jujube (Zizyphus jujuba)  
Luffa  
Luffa cylindrica  
Poria  
Poria cocos  
Rehmannia  
Rehmannia glutinosa  
(hair tonics contg. hair growth stimulants and plant exts.)

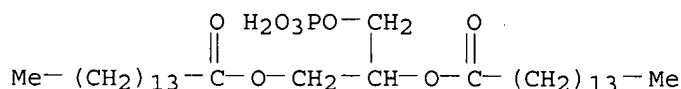
IT 638-53-9D, Tridecanoic acid, glycerides 1460-18-0, 1,13-  
Tridecamethylenedicarboxylic acid . 1721-51-3, .alpha.-Tocotrienol  
3843-51-4, Pentadecanamide 4268-63-7, Sodium pentadecanoate  
25605-88-3, Cholesteryl pentadecanoate 38304-91-5, Minoxidil  
41114-00-5, Ethyl pentadecanoate 67896-63-3 **98361-88-7**,  
1,2-Dipentadecanoylglycerol-3-phosphoric acid 104140-07-0, Pentadecanoic  
acid monoglyceride 121957-70-8 123416-52-4 131630-08-5 331427-59-9  
331427-61-3 331427-64-6  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BUU (Biological use, unclassified); BIOL (Biological  
study); USES (Uses)  
(hair tonics contg. hair growth stimulants and  
plant exts.)

IT 56-81-5D, Glycerin, tridecanoic acid esters  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair tonics contg. hair growth stimulants and plant exts.)

IT **98361-88-7**, 1,2-Dipentadecanoylglycerol-3-phosphoric acid  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BUU (Biological use, unclassified); BIOL (Biological  
study); USES (Uses)  
(hair tonics contg. hair growth stimulants and  
plant exts.)

RN 98361-88-7 CAPLUS

CN Pentadecanoic acid, 1-[(phosphonoxy)methyl]-1,2-ethanediyl ester (9CI)  
(CA INDEX NAME)



L32 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN.

AN 2001:136978 CAPLUS

DN 134:183282

TI Hair growth stimulants containing lysophosphatidic acids and/or  
phosphatidic acids

IN Takahashi, Tomoya; Kamimura, Ayako; Matsuoka, Takako

PA Kyowa Hakko Kogyo Co., Ltd., Japan

SO PCT Int. Appl., 38 pp.  
CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM A61K007-06  
CC 62-3 (Essential Oils and Cosmetics)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001012141	A1	20010222	WO 2000-JP5542	20000818
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1214928	A1	20020619	EP 2000-953498	20000818
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
PRÄI	JP 1999-231144	A	19990818		
	JP 2000-137711	A	20000510		
	WO 2000-JP5542	W	20000818		
OS	MARPAT 134:183282				
AB	Hair growth stimulants characterized by contg. as the active ingredient at least one member selected from among lysophosphatidic acids and phosphatidic acids the fatty acid group moiety of which consists exclusively of fatty acid groups having even-numbered and linear carbon chains. A hair growth stimulant compn. contg. monopalmitoyllysophosphatidic acid 0.3, grape-derived proanthocyanidin 3, ethanol 70, 1,3-butylene glycol 3, N-acetylglutamineisostearate 0.25, polyoxyethylene(25)glyceryl pyroglutamic acid diisostearate ester 0.25 % was prepd. and tested for its hair growth-stimulating effect.				
ST	hair growth stimulant lysophosphatidic acid ester; phosphatidic acid ester				
IT	Phosphatidic acids				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(esters; hair growth stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters)				
IT	Hair preparations				
	(growth stimulants; hair growth stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters)				
IT	Lysophosphatidic acids				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(hair growth stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters)				
IT	Proanthocyanidins				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(hair growth stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters and proanthocyanidins)				
IT	Tocopherols				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(hair growth stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters and tocopherols)				
IT	14268-17-8, Dioleoyl phosphatidic acid 22002-85-3, 1-Palmitoyllysophosphatidic acid 79806-85-2, Dilauroyl phosphatidic acid				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(hair growth stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters)				
IT	20315-25-7, Proanthocyanidin B1 23567-23-9, Proanthocyanidin B3				

29106-49-8, Proanthocyanidin B2 37064-30-5, Proanthocyanidin c1  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(hair growth stimulants contg. lysophosphatidic acid and/or  
phosphatidic acid esters and proanthocyanidins)

IT 1404-26-8, Polymyxin B 1935-18-8, Palmitoyl-carnitine 58066-85-6,  
Hexadecylphosphocholine 121263-19-2, Calphostin C  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(hair growth stimulants contg. lysophosphatidic acid and/or  
phosphatidic acid esters and protein kinase C inhibitors)

IT 58-95-7, d-.alpha.-Tocopherol acetate 59-02-9, d-.alpha.-Tocopherol  
2074-53-5, dl-.alpha.-Tocopherol 51898-34-1, dl-.alpha.-Tocopherol  
nicotinate 52225-20-4, dl-.alpha.-Tocopherol acetate  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(hair growth stimulants contg. lysophosphatidic acid and/or  
phosphatidic acid esters and tocopherols)

IT 141436-78-4, Protein kinase C  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitor; hair growth stimulants contg. lysophosphatidic acid and/or  
phosphatidic acid esters and protein kinase C inhibitors)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Kastell; JP 57165309 A CAPLUS
- (2) Kastell; EP 60933 A CAPLUS
- (3) Kastell; US 4515778 A 1985 CAPLUS
- (4) Kyowa Hakko Kogyo Co Ltd; JP 09315947 A CAPLUS
- (5) Kyowa Hakko Kogyo Co Ltd; EP 768079 A CAPLUS
- (6) Kyowa Hakko Kogyo Co Ltd; WO 9600561 A 1996 CAPLUS
- (7) Kyowa Hakko Kogyo Co Ltd; EP 797978 A 1997 CAPLUS
- (8) Lang; DE 4113346 A 1992 CAPLUS
- (9) Lion Corporation; JP 5927809 A
- (10) Lion Corporation; EP 102534 A 1984 CAPLUS

IT 14268-17-8, Dioleoyl phosphatidic acid 79806-85-2,  
Dilauroyl phosphatidic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

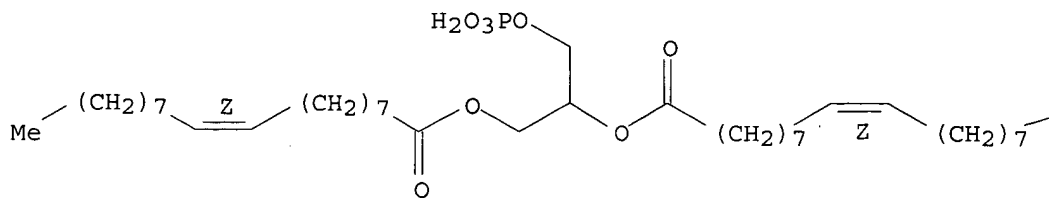
(hair growth stimulants contg. lysophosphatidic acid and/or  
phosphatidic acid esters)

RN 14268-17-8 CAPLUS

CN 9-Octadecenoic acid (9Z)-, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester  
(9CI) (CA INDEX NAME)

Double bond geometry as shown.

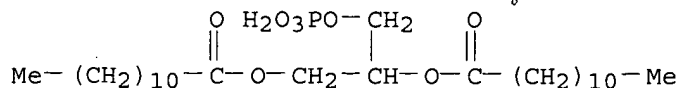
PAGE 1-A



PAGE 1-B

Me

RN 79806-85-2 CAPLUS  
 CN Dodecanoic acid, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester (9CI) (CA  
 INDEX NAME)



L32 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:149914 CAPLUS

DN 114:149914

TI Skin or hair preparations containing quaternary ammonium salts as bactericides

IN Iwasaki, Tetsuharu; Hioki, Yuichi; Miyakai, Harue

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-075

ICS A01N033-12; A01N043-40; A61K007-00; A61K007-08

CC 62-1 (Essential Oils and Cosmetics)

FAN.CNT 1

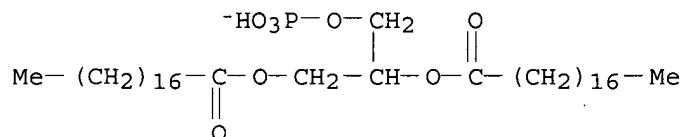
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02218605	A2	19900831	JP 1989-39577	19890220
PRAI	JP 1989-39577		19890220		
AB	Skin or hair preps. contain [R1NR2R3R4]+ X- [.gtoreq.1 of R1, R2, and R3 = C8-30 linear or branched alkyl, alkenyl, and the others = Me, Et, PhCH2, 4-pyridinylmethyl, (CH2CH2O)nH, CH2(CHOH)4CH2OH; R4 = Me, Et, CH2CH2OH; X- = anion residue of phosphate ester, phosphonate ester, C.gtoreq.7 sulfonate ester, or sulfate ester, anionic (co)polymer (d.p. .gtoreq.3); n = 1-15] (I) as essential ingredients. The quaternary ammonium compds. do not irritate skin and have strong antibacterial effects. I [R1 = R4 = Me, R2 = PhCH2, R3 = C12H25, X = C16H33OP(O)(OH)O-] 2, hexadecyl phosphate triethanolmaine salt 4, polyoxyethylene sorbitan monooleate 2, and H2O 92 wt. parts were mixed to give a skin prepn.				
ST	quaternary ammonium skin hair cosmetic; bactericide quaternary ammonium cosmetic				
IT	Quaternary ammonium compounds, biological studies				
RL:	PREP (Preparation)				
	(cosmetic skin or hair preps. contg., as bactericides)				
IT	Cosmetics				
	(quaternary ammonium compd. as bactericides in)				
IT	Hair preparations				
	Shampoos				
	(quaternary ammonium salts as bactericides in)				
IT	Bactericides, Disinfectants, and Antiseptics				
	(medical, quaternary ammonium compds., cosmetic skin and hair preps. contg.)				
IT	132781-86-3	132781-87-4	132781-89-6	132781-91-0	
	132791-83-4	132806-05-4			
RL:	BIOL (Biological study)				
	(cosmetic skin or hair preps. contg., as bactericide)				
IT	132781-89-6				
RL:	BIOL (Biological study)				
	(cosmetic skin or hair preps. contg., as bactericide)				
RN	132781-89-6 CAPLUS				
CN	Benzenemethanaminium, N-dodecyl-N,N-dimethyl-, salt with 1-[(phosphonooxy)methyl]-1,2-ethanediyl dioctadecanoate (1:1) (9CI) (CA INDEX NAME)				



CM 1

CRN 132781-88-5

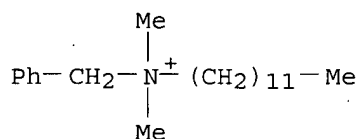
CMF C39 H76 O8 P



CM 2

CRN 10328-35-5

CMF C21 H38 N



L32 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1989:601379 CAPLUS

DN 111:201379

TI Hair preparations containing vasodilating agents and derivatives of fatty acids or alcohols

IN Sugiyama, Keikichi; Takada, Koji; Fukushima, Akira

PA Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63310813	A2	19881219	JP 1987-146497	19870612
PRAI	JP 1987-146497		19870612		
OS	MARPAT 111:201379				

AB A hair prepn. to promote melanin formation for gray hairs comprises (1) .gtoreq.1 compds. selected from xanthine, papaverine, papaveraldine, 4-(3-butoxy-4-methoxybenzyl)-2-imidazolidinone, and their derivs. and (2) .gtoreq.1 compds. selected from fatty acids and alcs. having odd-numbered C and their derivs. A hair tonic contained ethanol 80.0, olive oil 1.0, .alpha.-tocopherol 0.5, theophylline 0.3, pentadecanoic acid monoglyceride 2.0, a coloring agent q.s., a perfume q.s., and distd. water 16.2%. The hair tonic was applied to 20 volunteers with gray hair for 3 mo and satisfactory results were reported.

ST hair tonic theophylline glyceride; xanthine fatty acid lac hair prepn; papaverine fatty acid hair prepn; papaveraldine fatty acid hair prepn

IT Amides, biological studies

Esters, biological studies

Glycerides, biological studies

Phospholipids, biological studies

Sphingolipids

RL: BIOL (Biological study)  
(hair preps. contg., for gray hair)

IT Hair preparations  
(xanthines and fatty acids and alcs. in, for gray hair, melanin formation in relation to)

IT Carboxylic acids, biological studies  
Glycerides, biological studies  
RL: BIOL (Biological study)  
(di-, hair preps. contg., for gray hair)

IT Phosphatidic acids  
RL: BIOL (Biological study)  
(esters, hair preps. contg., for gray hair)

IT Glycerides, biological studies  
RL: BIOL (Biological study)  
(mono-, hair preps. contg., for gray hair)

IT Amides, biological studies  
RL: BIOL (Biological study)  
(secondary, hair preps. contg., for gray hair)

IT Amides, biological studies  
RL: BIOL (Biological study)  
(tertiary, hair preps. contg., for gray hair)

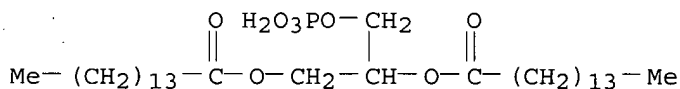
IT Hair preparations  
(tonics, xanthines and fatty acids and alcs. in, for gray hair, melanin formation in relation to)

IT 57-11-4, Octadecanoic acid, biological studies 58-08-2, Caffeine, biological studies 58-55-9, Theophylline, biological studies 58-74-2, Papaverine 61-25-6 83-67-0, Theobromine 112-05-0, Nonanoic acid 522-57-6, Papaveraldine 1182-66-7, Cholesterol nonanoate 1454-85-9, Heptadecyl alcohol 1460-18-0, 1,13-Tridecamethylene dicarboxylic acid 1731-81-3, Undecyl acetate 1731-92-6, Methyl heptadecanoate 4268-61-5, Sodium nonadecanoate 9004-96-0 24675-16-9 28822-58-4, 3-Isobutyl-1-methylxanthine 29925-17-5 34778-57-9, Tridecanoic acid amide 36653-82-4, Cetanol 68738-87-4 95678-14-1 **98361-88-7** 104140-07-0, Pentadecanoic acid monoglyceride 121957-71-9, Tridecanoic acid diglyceride 123416-52-4 123499-79-6, N-Acetylundecanoic acid amide 123519-84-6, N,N-Diacetylnonanoic acid amide  
RL: BIOL (Biological study)  
(hair preps. contg., for gray hair)

IT **98361-88-7**  
RL: BIOL (Biological study)  
(hair preps. contg., for gray hair)

RN 98361-88-7 CAPLUS

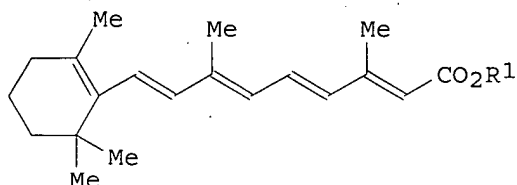
CN Pentadecanoic acid, 1-[(phosphonoxy)methyl]-1,2-ethanediyl ester (9CI)  
(CA INDEX NAME)



L32 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1989:601378 CAPLUS  
DN 111:201378  
TI Hair preparations containing coenzymes  
IN Sugiyama, Keikichi; Takada, Koji; Yamamoto, Ikuo  
PA Japan  
SO Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM A61K007-06  
CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63301810	A2	19881208	JP 1987-137983	19870601
PRAI	JP 1987-137983		19870601		
OS	MARPAT 111:201378				
GI					



I

AB A hair prepn. contains .gtoreq.1 compd. selected from the following: (1) .beta.-NAD, its reduced compd., or salts, (2) .beta.-NADP, its reduced compd., or its salts, (3) 5'-deoxyadenosylcobalamin or its salt, (4) CoA or its salts, (5) pyrroloquinolinequinone or its salts, (6) vitamin A acid, its derivs. or salts, (7) psoralen, its derivs. or salts, and (8) phenothiazine, its derivs. or salts. The vitamin A derivs. are I (R1 = H, C1-25 alkyl, amino, polyoxyethylene residues or cation salts). This prepn. is useful as a hair tonic and hair cream which activates melanocytes in hair follicles, and stimulates melanine formation. Thus, a hair tonic contained stearic acid 2.5, cetanol 1.5, vaseline 5.0, liq. paraffin 10.0, polyethylene glycol monooleate 2.0, undecyl succinate 3.0, CoB12 0.7, polyethylene glycol 3.0, triethanolamine 1.0, a preservative q.s., H2O 71.3 parts by wt., and a perfume g.s.

ST hair tonic coenzyme

IT Coenzymes

RL: BIOL (Biological study)

(hair tonics contg.)

IT Amides, biological studies

Fatty acids, biological studies

Glycerides, biological studies

Phosphatidic acids

Phospholipids, biological studies

Sphingolipids

RL: BIOL (Biological study)

(hair tonics contg. coenzymes and)

IT Carboxylic acids, biological studies

RL: BIOL (Biological study)

(di-, hair tonics contg. coenzymes and)

IT Carboxylic acids, esters

RL: BIOL (Biological study)

(esters, hair tonics contg. coenzymes and)

IT Steroids, compounds

RL: BIOL (Biological study)

(hydroxy, esters, hair tonics contg. coenzymes and)

IT Hair preparations

(tonics, contg. coenzymes)

IT 53-57-6 53-59-8, .beta.-Nicotinamide adenine dinucleotide phosphate

53-84-9 58-68-4 66-97-7, 7H-Furo[3,2-g][1]benzopyran-7-one 85-61-0,

Coenzyme A, uses and miscellaneous 92-84-2D, Phenothiazine, derivs.

302-79-4, Retinoic acid 13870-90-1, 5'-Deoxyadenosylcobalamin

20111-18-6 116751-95-2

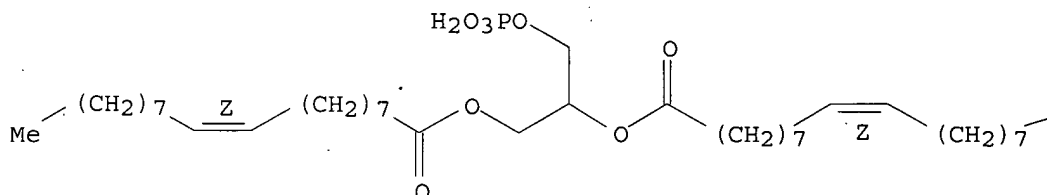
RL: BIOL (Biological study)

(hair tonics contg.)

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 14268-17-8 REGISTRY  
 CN 9-Octadecenoic acid (9Z)-, 1-[(phosphonoxy)methyl]-1,2-ethanediyl ester  
 (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 9-Octadecenoic acid (Z)-, 1-[(phosphonoxy)methyl]-1,2-ethanediyl ester  
 CN Olein, 1,2-di-, dihydrogen phosphate (7CI, 8CI)  
 OTHER NAMES:  
 CN Dioleoyl phosphatidic acid  
 FS STEREOSEARCH  
 DR 77889-92-0, 5487-64-9, 45320-58-9, 329329-11-5  
 MF C39 H73 O8 P  
 CI COM  
 LC STN Files: BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS,  
 EMBASE, MEDLINE, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

— Me

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

171 REFERENCES IN FILE CA (1947 TO DATE)  
 3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 171 REFERENCES IN FILE CAPLUS (1947 TO DATE)  
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 22002-85-3 REGISTRY  
CN Hexadecanoic acid, 2-hydroxy-3-(phosphonoxy)propyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Palmitin, 1-mono-, 3-(dihydrogen phosphate) (8CI)  
CN Palmitin, 1-mono-, 3-phosphate (7CI)

OTHER NAMES:

CN 1-Palmitoylglycerol 3-phosphate  
CN 1-Palmitoyllysophosphatidic acid

FS ~~3D CONCORD~~

DR 68852-68-6

MF C19 H39 O7 P

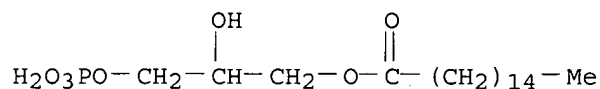
CI COM

LC STN Files: BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST, DDFU, DRUGU, EMBASE, MEDLINE, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

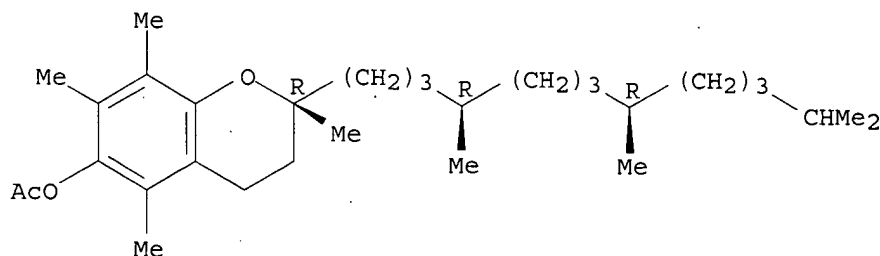
64 REFERENCES IN FILE CA (1947 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

64 REFERENCES IN FILE CAPLUS (1947 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2783 REFERENCES IN FILE CA (1947 TO DATE)  
 17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 2793 REFERENCES IN FILE CAPLUS (1947 TO DATE)  
 43 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s e15

L16 1 58066-85-6/BI

=> d

L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 58066-85-6 REGISTRY

CN Ethanaminium, 2-[[[(hexadecyloxy)hydroxyphosphinyl]oxy]-N,N,N-trimethyl-,  
 inner salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Choline phosphate, hexadecyl ester, hydroxide, inner salt (6CI)

OTHER NAMES:

CN D 18506

CN Hexadecylphosphocholine

CN Hexadecylphosphorylcholine

CN HPC

CN Miltefosine

CN Miltex

CN n-Hexadecylphosphocholine

CN n-Hexadecylphosphorylcholine

CN NSC 605583

FS 3D CONCORD

DR 93597-88-7

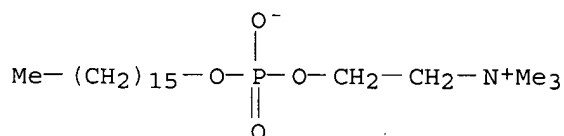
MF C21 H46 N O4 P

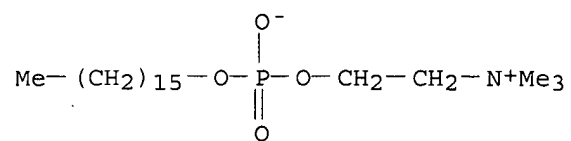
CI COM

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*,  
 BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT,  
 CHEMCATS, CIN, CSCHM, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES,  
 EMBASE, IPA, MEDLINE, MRCK\*, PHAR, PROMT, RTECS\*, SYNTHLINE, TOXCENTER,  
 USAN, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: WHO





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

345 REFERENCES IN FILE CA (1947 TO DATE)  
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 348 REFERENCES IN FILE CAPLUS (1947 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L18 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 79806-85-2 REGISTRY

CN Dodecanoic acid, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Laurin, 1,2-di-, dihydrogen phosphate (7CI)

CN Laurin, 1,2-di-, phosphate (6CI)

OTHER NAMES:

CN Dilauroylphosphatidic acid

FS 3D CONCORD

DR 25711-54-0

MF C27 H53 O8 P

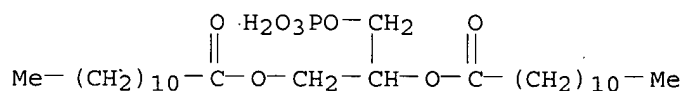
CI COM

LC STN Files: ADISNEWS, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CHEMLIST, MEDLINE, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

71 REFERENCES IN FILE CA (1947 TO DATE)

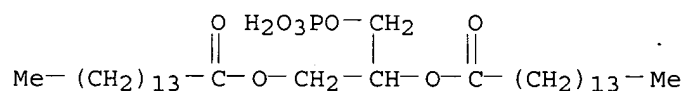
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

71 REFERENCES IN FILE CAPLUS (1947 TO DATE)

2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)



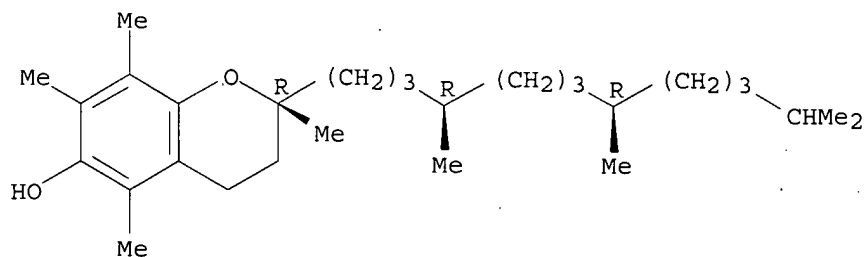
IT 1182-66-7, Cholesterol nonanoate 1460-18-0, 1,13-  
 Tridecamethylenedicarboxylic acid 1731-92-6, Methyl heptadecanoate  
 4268-61-5, Sodium nonadecanoate 24675-16-9, 1,2-Diundecanoylglycero-3-  
 phosphorylcholine 34778-57-9, Tridecanoic acid amide 95678-14-1,  
 Tripentadecyl glyceryl ether **98361-88-7**, 1,2-  
 Dipentadecanoylglycero-3-phosphoric acid 104140-07-0, Monoglyceryl  
 pentadecanoate 123416-52-4 123499-79-6, N-Acetylundecanoic acid amide  
 123499-80-9, N-Tridecanoylsphingosine-1-phosphorylethanolamine  
 123519-84-6, N,N-Diacetylnonanoic acid amide  
 RL: BIOL (Biological study)  
 (hair tonics contg. coenzymes and)  
 IT **98361-88-7**, 1,2-Dipentadecanoylglycero-3-phosphoric acid  
 RL: BIOL (Biological study)  
 (hair tonics contg. coenzymes and)  
 RN 98361-88-7 CAPLUS  
 CN Pentadecanoic acid, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester (9CI)  
 (CA INDEX NAME)



L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 59-02-9 REGISTRY  
CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-, [2R-[2R\*(4R\*,8R\*)]]-  
OTHER NAMES:  
CN (+)-.alpha.-Tocopherol  
CN (2R)-3,4-Dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-ol  
CN (2R,4'R,8'R)-.alpha.-Tocopherol  
CN (all-R)-.alpha.-Tocopherol  
CN (R,R,R)-.alpha.-Tocopherol  
CN .alpha.-D-Tocopherol  
CN .alpha.-Tocopherol  
CN 5,7,8-Trimethyltocol  
CN Almfrol  
CN Covitol F 1000  
CN Covitol F 1000-2  
CN d-.alpha.-Tocopherol  
CN D-.alpha.-Tocopherol  
CN Denamone  
CN E 307  
CN E 307 (tocopherol)  
CN E-Oil 1000  
CN EMF 1490  
CN Emipherol  
CN Endo E  
CN Eprolin  
CN Eprolin S  
CN Epsilan  
CN Esorb  
CN Etamican  
CN Etavit  
CN Evitaminum  
CN Ilitia  
CN Irganox E 201  
CN NSC 20812  
CN Phytogermin  
CN Profecundin  
CN Rhenogran Ronotec 50  
CN Ronotec 2001  
CN Spavit E  
CN Syntopherol  
CN Tenox GT 1  
CN Tokopharm  
CN Vascuals  
CN Verrol  
CN Vitamin E.alpha.  
CN Vitaplex E  
CN Vitayonon  
CN Viteolin  
FS STEREOSEARCH  
DR 364-49-8, 121854-78-2, 18920-62-2  
MF C29 H50 O2  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIAGENES, DRUGU, EMBASE, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS\*,

SPECINFO, TOXCENTER, USPAT2, USPATFULL, VETU  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

12330 REFERENCES IN FILE CA (1947 TO DATE)  
174 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
12359 REFERENCES IN FILE CAPLUS (1947 TO DATE)  
17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L15 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 58-95-7 REGISTRY  
 CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN .alpha.-Tocopherol acetate (6CI)  
 CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-, acetate, [2R-[2R\*(4R\*,8R\*)]]-  
 CN 6-Chroman-2-ol, 2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-, acetate, (+)- (8CI)  
 CN Vitamin E acetate (7CI)  
 OTHER NAMES:  
 CN (+)-.alpha.-Tocopherol acetate  
 CN (+)-.alpha.-Tocopheryl acetate  
 CN (2R,4'R,8'R)-.alpha.-Tocopherol acetate  
 CN (2R,4'R,8'R)-.alpha.-Tocopheryl acetate  
 CN (R,R,R)-.alpha.-Tocopheryl acetate  
 CN .alpha.-Tocopheryl acetate  
 CN 2,5,7,8-Tetramethyl-2-(4,8,12-trimethyltridecyl)-6-chroman-2-ol acetate  
 CN Alfamol  
 CN Combinal E  
 CN Contopheron  
 CN Copherol 12250  
 CN Copherol 1250  
 CN Covitol 1100  
 CN Covitol 1360  
 CN D-.alpha.-Tocopherol acetate  
 CN d-.alpha.-Tocopherol acetate  
 CN d-.alpha.-Tocopheryl acetate  
 CN D-.alpha.-Tocopheryl acetate  
 CN d-Vitamin E acetate  
 CN E-Ferol  
 CN E-Toplex  
 CN E-Vicotrat  
 CN Ecofrol  
 CN Econ  
 CN Endo E Dompe  
 CN Ephynal acetate  
 CN Epsilan-M  
 CN Erevit  
 CN Evipherol  
 CN Fertilvit  
 CN Gevex  
 CN Spondyvit  
 CN Tinoderm E  
 CN Tocopherex  
 CN Tocopherol acetate  
 CN Tocopheryl acetate  
 CN Tocophrin  
 CN Tofaxin  
 CN Tokoferol acetate  
 CN Vitamin E.alpha. acetate  
 FS STEREOSEARCH  
 DR 12741-00-3, 1406-70-8, 26243-95-8  
 MF C31 H52 O3  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHM, DETHERM\*, DIOGENES, EMBASE, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

L14 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 52225-20-4 REGISTRY

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)-rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-, acetate, [2R\*(4R\*,8R\*)]-(.-.-.)-

OTHER NAMES:

CN (.-.-.)-.alpha.-Tocopherol acetate

CN all-rac-.alpha.-Tocopheryl acetate

CN Detulin

CN DL-.alpha.-Tocopherol acetate

CN dl-.alpha.-Tocopherol acetate

CN dl-.alpha.-Tocopheryl acetate

CN DL-.alpha.-Tocopheryl acetate

CN dl-Vitamin E acetate

CN E-Vimin

CN Ephynal

CN Eusovit

CN OptoVit E

CN Rovimix E 50SD

CN Syntopherol acetate

CN Toco500

CN Vitagutt

AR 7695-91-2

FS STEREOSEARCH

MF C31 H52 O3

CI COM

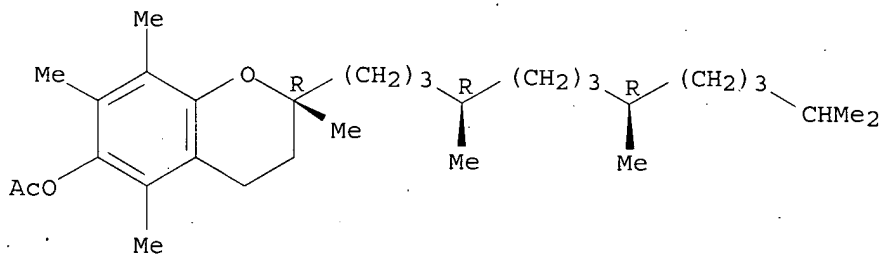
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DIOGENES, EMBASE, IFICDB, IFIPAT, IFIUDB, MRCK\*, PIRA, PROMT, RTECS\*, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Relative stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

608 REFERENCES IN FILE CA (1947 TO DATE)

2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

608 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L13 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 51898-34-1 REGISTRY

CN 3-Pyridinecarboxylic acid, (2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl ester, rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 3-Pyridinecarboxylic acid, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl ester, [2R\*(4R\*,8R\*)]-(.-+.-)-

OTHER NAMES:

CN 3-Pyridinecarboxylic acid, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl ester, [2R\*(4R\*,8R\*)]-

CN dl-.alpha.-Tocopherol nicotinate

CN DL-.alpha.-Tocopherol nicotinate

CN DL-.alpha.-Tocopheryl nicotinate

FS STEREOSEARCH

MF C35 H53 N O3

CI COM

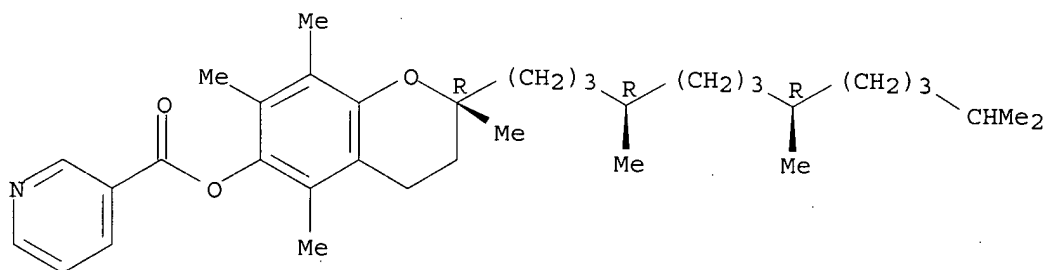
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPAT2, USPATFULL, VETU

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Relative stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

63 REFERENCES IN FILE CA (1947 TO DATE)

63 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L12 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 37064-30-5 REGISTRY

CN [4,8':4',8''-Ter-2H-1-benzopyran]-3,3',3'',5,5',5'',7,7',7''-nonol,  
2,2',2''-tris(3,4-dihydroxyphenyl)-3,3',3'',4,4',4''-hexahydro-,  
(2R,2'R,2''R,3R,3'R,3''R,4R,4'S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN [4,8':4',8''-Ter-2H-1-benzopyran]-3,3',3'',5,5',5'',7,7',7''-nonol,  
2,2',2''-tris(3,4-dihydroxyphenyl)-3,3',3'',4,4',4''-hexahydro-,  
[2R-[2.alpha.,3.alpha.,4.beta.[2'R\*,3'R\*,4'S\*(2''R\*,3''R\*)]]]-

OTHER NAMES:

CN Cinnamtannin A1

CN Proanthocyanidin C1

CN Procyanidin C1

CN Procyanidol C1

FS STEREOSEARCH

DR 65085-09-8

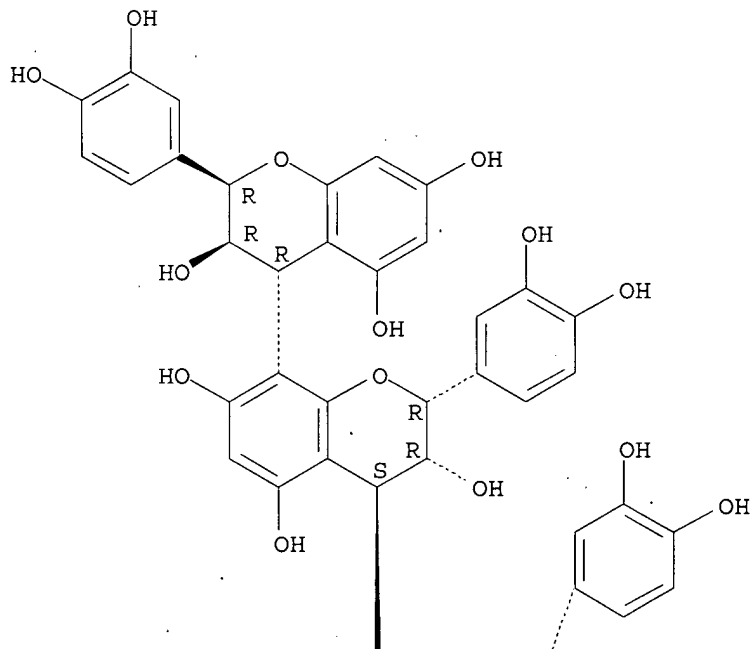
MF C45 H38 O18

CI COM

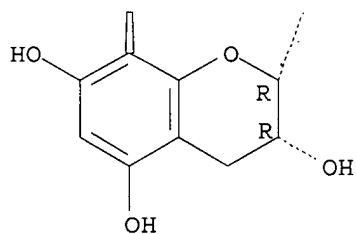
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, CA, CAPLUS, CHEMCATS,  
DDFU, DRUGU, NAPRALERT, RTECS\*, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)

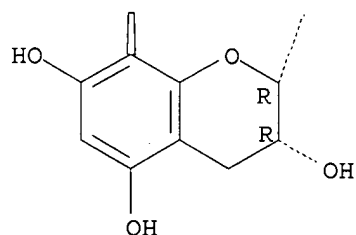
Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 2-A





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

205 REFERENCES IN FILE CA (1947 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

206 REFERENCES IN FILE CAPLUS (1947 TO DATE)



L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 29106-49-8 REGISTRY

CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'R,4R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN [4,8''-Biflavan]-3,3',3'',3''',4',4''',5,5'',7,7''-decol, stereoisomer (8CI)

CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, [2R-[2.alpha.,3.alpha.,4.beta.(2'R\*,3'R\*)]]-

OTHER NAMES:

CN (+)-Procyanidin B2

CN (-)-Epicatechin-(4.beta.-8)-(-)-epicatechin

CN Proanthocyanidin B2

CN Procyanidin B2

CN Procyanidol B2

FS STEREOSEARCH

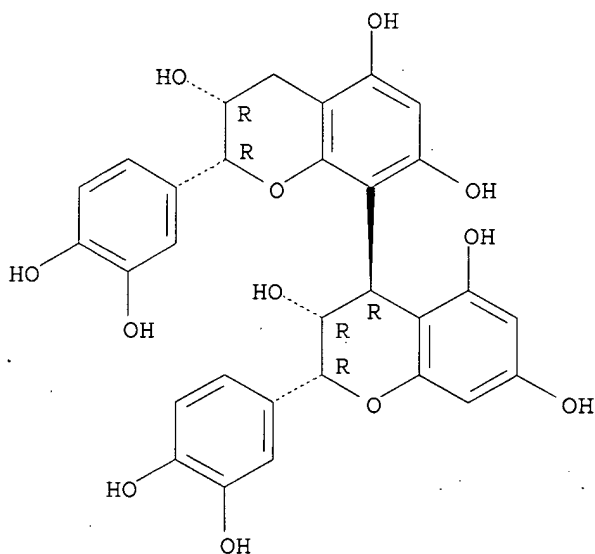
DR 75923-52-3

MF C30 H26 O12

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, IPA, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

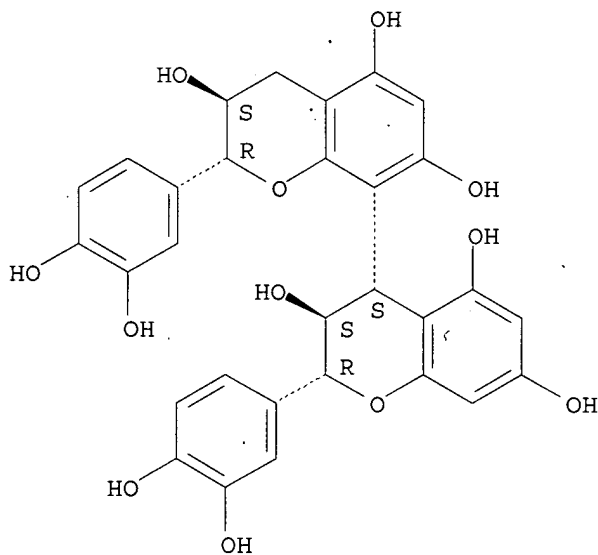
493 REFERENCES IN FILE CA (1947 TO DATE)

4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

495 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L10 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 23567-23-9 REGISTRY  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3S,3'S,4S)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN [4,8''-Biflavan]-3,3',3'',3''',4',4''',5,5'',7,7''-decol, stereoisomer (8CI)  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, [2R-[2.alpha.,3.beta.,4.alpha.(2'R\*,3'S\*)]]-  
 OTHER NAMES:  
 CN (+)-Catechin-(4.alpha..fwdarw.8)-(+)-catechin  
 CN Catechin-(4.alpha..fwdarw.8)-catechin  
 CN Proanthocyanidin B3  
 CN Procyanidin B3  
 CN Procyanidol B3  
 FS STEREOSEARCH  
 DR 56748-96-0, 93778-90-6, 93051-31-1  
 MF C30 H26 O12  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (-).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

378 REFERENCES IN FILE CA (1947 TO DATE)  
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 379 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s e7

L8 1 2074-53-5/BI

=> d

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 2074-53-5 REGISTRY

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-, [2R\*(4R\*,8R\*)]-

OTHER NAMES:

CN dl-.alpha.-Tocopherol

CN NSC 82623

FS STEREOSEARCH

MF C29 H50 O2

CI COM

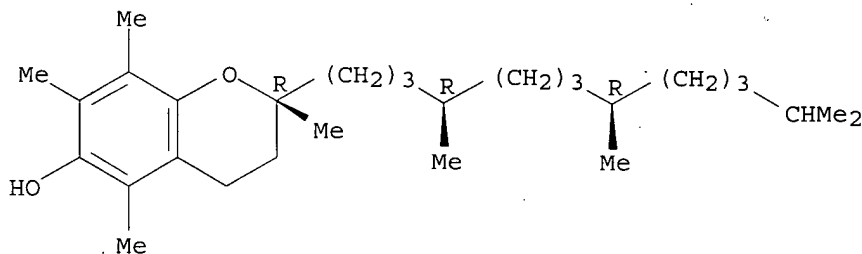
LC STN Files: AGRICOLA, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Relative stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

280 REFERENCES IN FILE CA (1947 TO DATE)

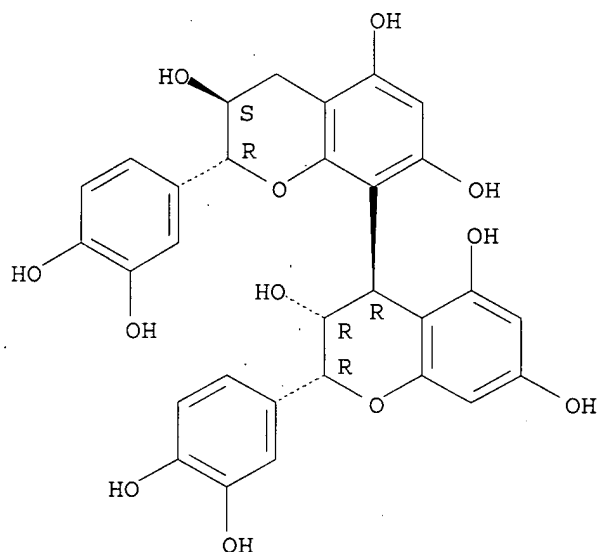
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

280 REFERENCES IN FILE CAPLUS (1947 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 20315-25-7 REGISTRY  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'S,4R)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN [4,8''-Biflavan]-3,3',3'',3''',4',4''',5,5'',7,7''-decol, stereoisomer (8CI)  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, [2R-[2.alpha.,3.alpha.,4.beta.(2'R\*,3'S\*)]]-  
 OTHER NAMES:  
 CN (-)-Epicatechin-(4.beta.-8)-(+)-catechin  
 CN Proanthocyanidin B1  
 CN Procyanidin B1  
 CN Procyanidol B1  
 FS STEREOSEARCH  
 DR 75923-51-2  
 MF C30 H26 O12  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CSChem, DDFU, DRUGU, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)

Absolute stereochemistry.



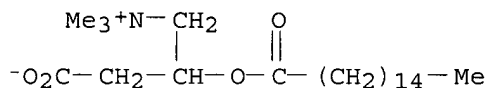
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

326 REFERENCES IN FILE CA (1947 TO DATE)  
 3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 329 REFERENCES IN FILE CAPLUS (1947 TO DATE)

-8/BI

=> d

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 1935-18-8 REGISTRY  
CN 1-Propanaminium, 3-carboxy-N,N,N-trimethyl-2-[(1-oxohexadecyl)oxy]-, inner salt (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Ammonium, (3-carboxy-2-hydroxypropyl)trimethyl-, hydroxide, inner salt, palmitate (8CI)  
CN Palmitic acid, ester with (3-carboxy-2-hydroxypropyl)trimethylammonium hydroxide inner salt (8CI)  
OTHER NAMES:  
CN (.+-.)-Palmitoyl carnitine  
CN DL-Palmitoylcarnitine  
CN O-Hexadecanoyl-DL-carnitine  
CN Palmitoyl DL-carnitine  
CN Palmitoyl-d,l-carnitine  
CN Palmitoylcarnitine  
CN Palmityl carnitine  
CN Palmityl-DL-carnitine  
FS 3D CONCORD  
DR 929-78-2, 22981-42-6, 3766-08-3  
MF C23 H45 N O4  
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, DDFU, DRUGU, EMBASE, IPA, MEDLINE, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)



475 REFERENCES IN FILE CA (1947 TO DATE)  
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
475 REFERENCES IN FILE CAPLUS (1947 TO DATE)  
12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 141436-78-4 REGISTRY  
CN Kinase (phosphorylating), protein, cPKC (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN .alpha.-Protein kinase C  
CN Calcium-dependent protein kinase C  
CN Calcium/phospholipid-dependent protein kinase  
CN Calcium/phospholipid-dependent protein kinase C  
CN Classical protein kinase C  
CN Conventional protein kinase C  
CN Phosphatidylserine-sensitive calcium-dependent protein kinase  
CN Protein kinase C  
CN Protein kinase C .beta.  
CN Protein kinase C .beta.I  
CN Protein kinase C .beta.II  
CN Protein kinase C.alpha.  
CN Protein kinase C.gamma.  
CN Protein kinase C.nu.  
CN Protein kinase C3  
CN Protein kinase PKC1  
CN Type II protein kinase C  
MF Unspecified  
CI MAN  
PCT Manual registration  
SR CA  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,  
CA, CAPLUS, CEN, CHEMCATS, CIN, CSCHEM, EMBASE, IPA, PROMT, TOXCENTER,  
USPAT2, USPATFULL

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

22498 REFERENCES IN FILE CA (1947 TO DATE)

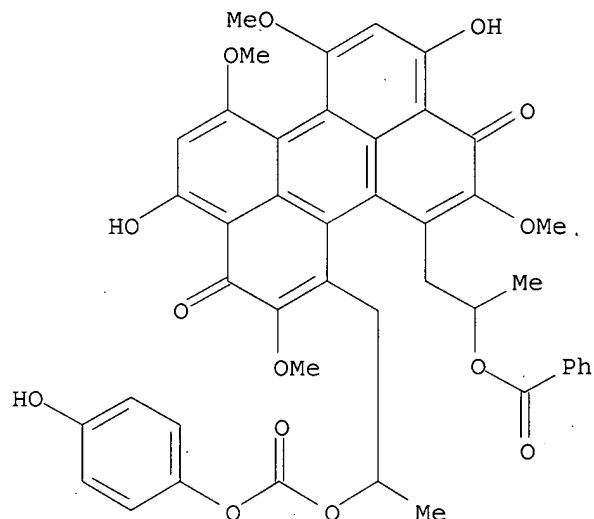
66 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

22547 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 1404-26-8 REGISTRY  
CN Polymyxin B (7CI, 8CI, 9CI) (CA INDEX NAME)  
DR 8054-38-4  
MF Unspecified  
CI COM, MAN  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,  
CA, CABA, CANCERLIT, CAOLD, CAPLUS, CBNB, CEN, CHEMCATS, CHEMLIST, CIN,  
CSCHEM, DIOGENES, EMBASE, IFICDB, IFIPAT, IFIADB, IPA, MEDLINE, MRCK\*,  
NAPRALERT, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS\*, TOXCENTER, USAN,  
USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, WHO  
(\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
2069 REFERENCES IN FILE CA (1947 TO DATE)  
106 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
2070 REFERENCES IN FILE CAPLUS (1947 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 121263-19-2 REGISTRY  
 CN Carbonic acid, (1R)-2-[12-[(2R)-2-(benzyloxy)propyl]-3,10-dihydro-4,9-dihydroxy-2,6,7,11-tetramethoxy-3,10-dioxo-1-perylenyl]-1-methylethyl 4-hydroxyphenyl ester, stereoisomer (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Perylene, carbonic acid deriv.  
 OTHER NAMES:  
 CN Calphostin C  
 CN Cladochrome E  
 CN UCN 1028C  
 DR 125411-36-1  
 MF C44 H38 O14  
 SR CA  
 LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGNL, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE, NAPRALERT, PHAR, PROMT, TOXCENTER, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

213 REFERENCES IN FILE CA (1947 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 214 REFERENCES IN FILE CAPLUS (1947 TO DATE)



L3 ANSWER 94 OF 98 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 22002-86-4 REGISTRY  
CN Octadecanoic acid, 2-hydroxy-3-(phosphonoxy)propyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Stearin, 1-mono-, 3-(dihydrogen phosphate) (8CI)

OTHER NAMES:

CN 1-Stearoyl lysophosphatidic acid

CN G 1S3P

FS 3D CONCORD

DR 19491-32-8

MF C21 H43 O7 P

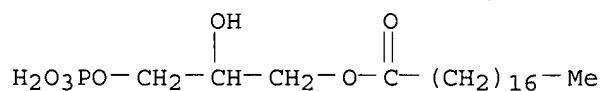
CI COM

LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMLIST, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

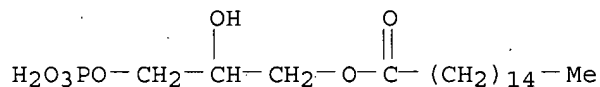


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

28 REFERENCES IN FILE CA (1947 TO DATE)

28 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L3 ANSWER 95 OF 98 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 22002-85-3 REGISTRY  
 CN Hexadecanoic acid, 2-hydroxy-3-(phosphonoxy)propyl ester (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Palmitin, 1-mono-, 3-(dihydrogen phosphate) (8CI)  
 CN Palmitin, 1-mono-, 3-phosphate (7CI)  
 OTHER NAMES:  
 CN 1-Palmitoylglycerol 3-phosphate  
 CN **1-Palmitoyllysophosphatidic acid**  
 FS 3D CONCORD  
 DR 68852-68-6  
 MF C19 H39 O7 P  
 CI COM  
 LC STN Files: BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST, DDFU, DRUGU, EMBASE, MEDLINE, TOXCENTER, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

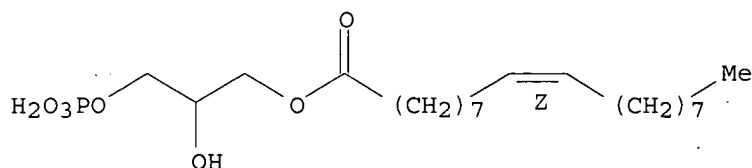


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

64 REFERENCES IN FILE CA (1947 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 64 REFERENCES IN FILE CAPLUS (1947 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 92 OF 98 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 22556-62-3 REGISTRY  
 CN 9-Octadecenoic acid (9Z)-, 2-hydroxy-3-(phosphonooxy)propyl ester, monosodium salt (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 9-Octadecenoic acid (Z)-, 2-hydroxy-3-(phosphonooxy)propyl ester, monosodium salt  
 CN Olein, 1-mono-, 3-(dihydrogen phosphate), monosodium salt (8CI)  
 OTHER NAMES:  
 CN **Sodium 1-oleoyl lysophosphatidic acid**  
 FS STEREOSEARCH  
 MF C21 H41 O7 P . Na  
 LC STN Files: CA, CAPLUS, CHEMCATS, CSCHEM, IFICDB, IFIPAT, IFIUDB, USPATFULL  
 CRN (22002-87-5)

Double bond geometry as shown.

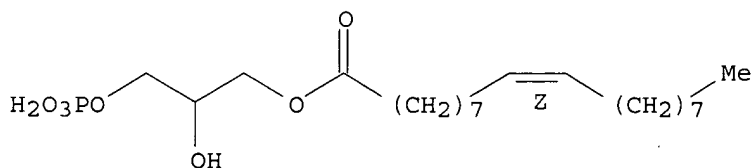


● Na

3 REFERENCES IN FILE CA (1947 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L3 ANSWER 93 OF 98 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 22002-87-5 REGISTRY  
 CN 9-Octadecenoic acid (9Z)-, 2-hydroxy-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 9-Octadecenoic acid (Z)-, 2-hydroxy-3-(phosphonooxy)propyl ester  
 CN Olein, 1-mono-, 3-(dihydrogen phosphate) (8CI)  
 CN Olein, 1-mono-, 3-phosphate (7CI)  
 OTHER NAMES:  
 CN 1-Oleoyl-lyso-phosphatidic acid  
 CN **1-Oleyllysophosphatidic acid**  
 CN **Oleoyl lysophosphatidic acid**  
 FS STEREOSEARCH  
 DR 68852-67-5  
 MF C21 H41 O7 P  
 CI COM  
 LC STN Files: AGRICOLA, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMLIST, EMBASE, MEDLINE, TOXCENTER, USPATFULL  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

87 REFERENCES IN FILE CA (1947 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

87 REFERENCES IN FILE CAPLUS (1947 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 94 OF '98 REGISTRY COPYRIGHT 2003 ACS on STN

# United States Patent [19]

Uster et al.

[11] Patent Number: 5,030,442

[45] Date of Patent: Jul. 9, 1991

[54] NON-CRYSTALLINE MINOXIDIL  
COMPOSITION

[75] Inventors: Paul S. Uster, Palo Alto; Yolanda P.  
Quinn, Daly City, both of Calif.

[73] Assignee: Liposome Technology, Inc., Menlo  
Park, Calif.

[21] Appl. No.: 333,660

[22] Filed: Apr. 4, 1989

## Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 32,512, Mar. 30, 1987,  
Pat. No. 4,828,837.

[51] Int. Cl.<sup>5</sup> ..... A61K 7/06; A61K 31/505

[52] U.S. Cl. .... 424/45; 264/4.1;  
424/1.1; 424/70; 424/450; 428/402.2; 514/78;  
514/256; 514/880; 514/947; 514/969; 514/975;  
514/944

[58] Field of Search ..... 264/4.1; 428/402.2;  
424/45, 450, 70; 436/829; 514/78, 947, 969,  
975, 256, 880

## [56] References Cited

### U.S. PATENT DOCUMENTS

3,413,400 11/1968 Lee ..... 424/479 X  
4,073,943 2/1978 Wretling et al. .... 514/938 X  
4,156,719 5/1979 Sezaki et al. .... 424/177 X  
4,654,354 3/1987 Shroot et al. .... 514/859 X  
4,670,185 6/1987 Fujiwara et al. .... 252/311  
4,828,837 5/1989 Uster et al. .... 424/450

### FOREIGN PATENT DOCUMENTS

0161445 11/1985 European Pat. Off. .... 514/78  
0177223 4/1986 European Pat. Off. .  
2145107 3/1985 United Kingdom ..... 424/45

Primary Examiner—Richard D. Lovering  
Attorney, Agent, or Firm—Hana Dolezalova

## [57] ABSTRACT

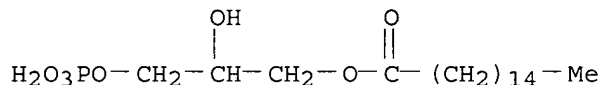
An aqueous, noncrystalline minoxidil composition for topical use which has significantly improved flux of the drug through human cadaver skin. The composition contains minoxidil complexed with an amphipathic compound, oleic acid and with pharmaceutically acceptable excipients. The composition may be formulated in an aqueous vehicle, or dispersed in fluorochlorocarbon solvent for spray delivery from a self-propelled spray device.

18 Claims, 15 Drawing Sheets

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

25 REFERENCES IN FILE CA (1962 TO DATE)  
26 REFERENCES IN FILE CAPLUS (1962 TO DATE)

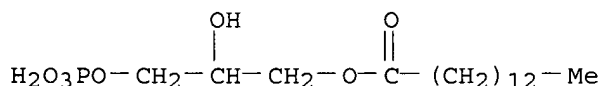
L3 ANSWER 91 OF 94 REGISTRY COPYRIGHT 2003 ACS  
RN 22002-85-3 REGISTRY  
CN ~~Hexadecanoic acid~~, 2-hydroxy-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Palmitin, 1-mono-, 3-(dihydrogen phosphate) (8CI)  
CN Palmitin, 1-mono-, 3-phosphate (7CI)  
OTHER NAMES:  
CN 1-Palmitoylglycerol 3-phosphate  
CN **1-Palmitoyllysophosphatidic acid**  
FS 3D CONCORD  
DR 68852-68-6  
MF C19 H39 O7 P  
CI COM  
LC STN Files: BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST, DDFU, DRUGU, EMBASE, MEDLINE, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*  
(\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

59 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
60 REFERENCES IN FILE CAPLUS (1962 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 92 OF 94 REGISTRY COPYRIGHT 2003 ACS  
RN 22002-84-2 REGISTRY  
CN Tetradecanoic acid, 2-hydroxy-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Myristin, 1-mono-, 3-(dihydrogen phosphate) (8CI)  
OTHER NAMES:  
CN **1-Myristoyllysophosphatidic acid**  
FS 3D CONCORD  
DR 122211-38-5  
MF C17 H35 O7 P  
LC STN Files: CA, CAPLUS, CHEMLIST, TOXCENTER, USPATFULL  
Other Sources: EINECS\*\*  
(\*Enter CHEMLIST File for up-to-date regulatory information)

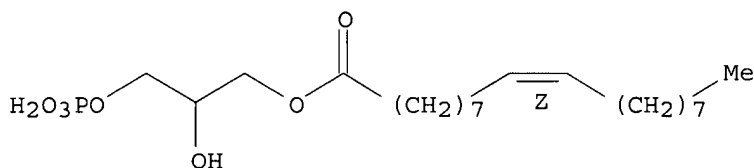


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

14 REFERENCES IN FILE CA (1962 TO DATE)  
14 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L3 ANSWER 89 OF 94 REGISTRY COPYRIGHT 2003 ACS  
 RN 22002-87-5 REGISTRY  
 CN 9-Octadecenoic acid (9Z)-, 2-hydroxy-3-(phosphonooxy)propyl ester (9CI)  
 (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 9-Octadecenoic acid (Z)-, 2-hydroxy-3-(phosphonooxy)propyl ester  
 CN Olein, 1-mono-, 3-(dihydrogen phosphate) (8CI)  
 CN Olein, 1-mono-, 3-phosphate (7CI)  
 OTHER NAMES:  
 CN 1-Oleoyle-lyso-phosphatidic acid  
 CN 1-Oleyllysophosphatidic acid  
 CN Oleoyl lysophosphatidic acid  
 FS STEREOSEARCH  
 DR 68852-67-5  
 MF C21 H41 O7 P  
 CI COM  
 LC STN Files: AGRICOLA, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS,  
 CHEMLIST, EMBASE, MEDLINE, TOXCENTER, USPATFULL  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

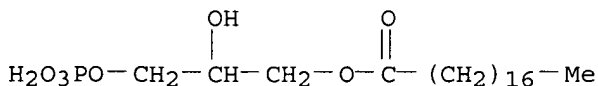
Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

81 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 82 REFERENCES IN FILE CAPLUS (1962 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 90 OF 94 REGISTRY COPYRIGHT 2003 ACS  
 RN 22002-86-4 REGISTRY  
 CN Octadecanoic acid, 2-hydroxy-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Stearin, 1-mono-, 3-(dihydrogen phosphate) (8CI)  
 OTHER NAMES:  
 CN 1-Stearoyl lysophosphatidic acid  
 CN G 1S3P  
 FS 3D CONCORD  
 DR 19491-32-8  
 MF C21 H43 O7 P  
 CI COM  
 LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMLIST, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)





=> fil reg

FILE 'REGISTRY' ENTERED AT 15:46:06 ON 02 MAR 2003

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 FEB 2003 HIGHEST RN 496269-39-7

DICTIONARY FILE UPDATES: 28 FEB 2003 HIGHEST RN 496269-39-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

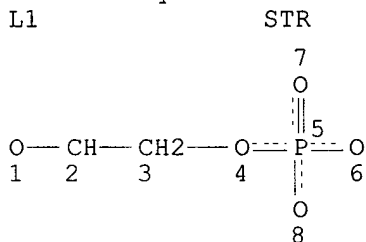
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d sta que 17



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

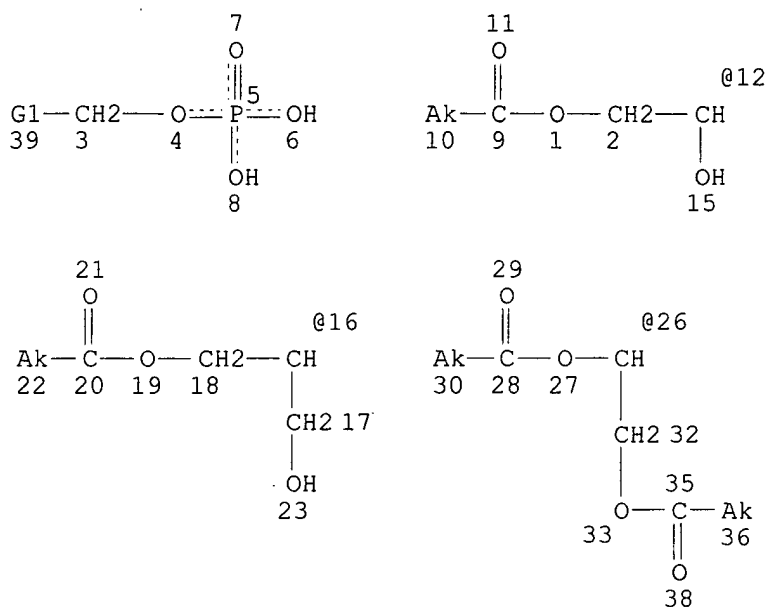
NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

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L4 17232 SEA FILE=REGISTRY SSS FUL L1 NOT L2

L5 STR



VAR G1=12/16/26

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE

L7 467 SEA FILE=REGISTRY SUB=L4 CSS FUL L5

100.0% PROCESSED 8762 ITERATIONS

467 ANSWERS

SEARCH TIME: 00.00.01

=> d his

(FILE 'HOME' ENTERED AT 15:18:33 ON 02 MAR 2003)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 15:18:56 ON 02 MAR 2003

L1 STR  
L2 SCR 1838  
L3 50 S L1 NOT L2 SAM  
L4 17232 S L1 NOT L2 FUL  
SAV TEMP L4 VKIM049/A  
L5 STR L1  
L6 22 S L5 CSS SAM SUB=L4  
L7 467 S L5 CSS FUL SUB=L4  
SAV L7 VKIM049A/A  
E PROANTHOCYANIDIN/CN  
L8 4 S E13,E14,E16,E22  
E PROANTHOCYANIDIN  
L9 36 S E3,E4  
L10 32 S L9 NOT L8  
E PROTEIN KINASE C/CN  
L11 3 S E3

Jan Delaval  
Reference Librarian  
Biotechnology & Chemical Library  
CM1 1E07 = 703-308-4498  
jan.delaval@uspto.gov

L12 E CALPHOSTIN C/CN  
 1 S E3  
 E HEXADECYLPHOSPHOCHOLINE/CN  
 L13 1 S E3  
 E POLYMYXIN B/CN  
 L14 1 S E3  
 E PALMITOYL-DL-CARNITINE/CN  
 L15 2 S E1, E6  
 L16 8 S C23H45NO4/MF AND PROPANAMINIUM AND OXOHXADECYL OXY  
 L17 3 S L16 NOT (14C OR D/ELS OR LABELED OR T/ELS)  
 E TOCOPHEROL/CN  
 L18 1 S E3  
 E CL-.ALPHA.-TOCOPHEROL/CN  
 E DL-.ALPHA.-TOCOPHEROL/CN  
 L19 3 S E3  
 E D-.ALPHA.-TOCOPHEROL/CN  
 L20 1 S E3  
 E DL-.ALPHA.-TOCOPHEROL ACETATE/CN  
 L21 2 S E3  
 E D-.ALPHA.-TOCOPHEROL ACETATE/CN  
 L22 1 S E3  
 E DL-.ALPHA.-TOCOPHEROL NICOTINATE/CN  
 L23 1 S E3  
  
 FILE 'HCAPLUS' ENTERED AT 15:30:56 ON 02 MAR 2003  
 L24 1706 S L7  
 E LYSOPHOSPHATIDIC ACID/CT  
 E E6+ALL  
 L25 1412 S E10+NT OR E11  
 L26 2091 S E11/BI OR E12/BI  
 E E9+ALL  
 L27 6945 S E4  
 L28 7976 S E4+NT  
 L29 8794 S E4-E8/BI  
 L30 10010 S L24-L29  
 L31 41 S L30 AND (HAIR OR BALD OR BALDNESS OR BALDING OR ALOPECI? OR H  
 L32 700 S L8  
 L33 317 S L10  
 L34 2105 S PROANTHOCYANIDIN?  
 L35 4 S PRO ANTHOCYANIDIN?  
 E PROANTHOCYANIDIN/CT  
 E E4+ALL  
 L36 2288 S E3+NT  
 L37 3526 S E3-E7/BI  
 L38 7 S L30 AND L32-L37  
 L39 21664 S L11  
 L40 38402 S PROTEIN KINASE C  
 L41 567 S L30 AND L39, L40  
 L42 3127 S L12-L15, L17  
 L43 6015 S CALPHOSTIN? C OR HEXADECYLPHOSPHOCHOLIN? OR POLYMYXIN? B OR P  
 L44 74 S L30 AND L42, L43  
 L45 29 S L41 AND L44  
 L46 3 S L38 AND L44, L45  
 L47 4 S L30 AND ?PROCYANIDIN?  
 L48 5 S L46, L47  
 L49 3 S L48 AND L31  
 L50 15174 S L18-L23  
 L51 168 S L30 AND (L50 OR ?TOCOPHER?)  
 L52 12 S L51 AND L31  
 L53 5 S L51 AND L38  
 L54 5 S L51 AND L44, L45, L47  
 L55 7 S L49, L53, L54  
 L56 3 S L55 AND L31

L57 3 S L56 AND L24-L56  
E HAIR/CT  
E E3+ALL  
L58 22417 S E6,E5+NT  
L59 20226 S E13+NT OR E14+NT OR E15+NT OR E17+NT  
E E13+ALL  
E E7+ALL  
E E15+ALL  
L60 42 S L30 AND L58-L59  
L61 3 S L31,L60 AND (L36 OR L37 OR ?PROCYANIDIN?)  
L62 12 S L31,L60 AND (L50 OR ?TOCOPHER?)  
L63 5 S L31,L60 AND (L41,L42,L43)  
L64 14 S L57,L61,L62,L63  
L65 7 S L64 AND HAIR/TI  
L66 7 S L64 NOT L65  
SEL DN AN 1-3  
L67 4 S L66 NOT E1-E9  
E TAKAHASHI T/AU  
L68 1914 S E3-E9  
E TAKAHASHI TOMOYA/AU  
L69 46 S E3  
E TOMOYA T/AU  
E KAMIMURA A/AU  
L70 31 S E3,E19  
E AYAKO K/AU  
E MATSUOKA T/AU  
L71 189 S E3,E18  
E TAKAKO M/AU  
L72 4 S L30 AND L68-L71  
L73 3 S L72 NOT MYOCARDIAL/TI  
E KYOWA/PA,CS  
L74 8423 S E3,E4  
E HAKKO/PA,CS  
L75 5236 S E3,E4  
E KOGYO/PA,CS  
L76 71963 S E3,E4  
L77 20 S L30 AND L74-L76  
L78 4 S L77 AND L31,L60  
L79 12 S L65,L67,L73,L78

FILE 'REGISTRY' ENTERED AT 15:46:06 ON 02 MAR 2003

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 15:46:18 ON 02 MAR 2003

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FILE COVERS 1907 - 2 Mar 2003 VOL 138 ISS 10

FILE LAST UPDATED: 28 Feb 2003 (20030228/ED)

This file contains CAS Registry Numbers for easy and accurate

substance identification.

=> d 179 all hitstr tot

L79 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:814656 HCAPLUS

DN 137:315733

TI **Hair growth stimulants containing phosphatidic acids**

IN **Kamimura, Ayako; Takahashi, Tomoya; Mimura, Takashi; Honda, Shinkichi**

PA **Kyowa Hakko Kogyo Co., Ltd., Japan**

SO U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM A61K007-075

NCL 424070230

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002155085	A1	20021024	US 2002-73107	20020212
	JP 2002316918	A2	20021031	JP 2002-32420	20020208
	EP 1252878	A2	20021030	EP 2002-3131	20020214

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRAI JP 2001-40350 A 20010216

OS MARPAT 137:315733

AB The present invention provides a **hair-growth** stimulant comprising, as an active ingredient, a phosphatidic acid contg. straight-chain alkyl having an odd no. of carbon atoms, a straight-chain alkenyl having an odd no. of carbon atoms, or a straight-chain alkynyl having an odd no. of carbon atoms. Thus, a compn. contained 1-O-oleoyl-2-O-acetyl-glycerol-3-phosphoric acid 0.4, EtOH 70, 1,3-butylene glycol 3, N-acetylglutamine isostearyl ester 0.25, and PEG glyceryl pyroglutamate isostearate 0.25%. The **hair growth** agent, a phosphatidic acid, showed a significant promoting effect on the **hair growth** of mice.

ST phosphatidic acid **hair growth** stimulant

IT **Hair preparations**  
(growth stimulants; **hair growth** stimulants contg. **phosphatidic acids**)

IT **Hair**  
(**hair growth** stimulants contg. **phosphatidic acids**)

IT **Phosphatidic acids**  
**Proanthocyanidins**  
**Tocopherols**

RL: COS (Cosmetic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**hair growth** stimulants contg. **phosphatidic acids**)

IT 109715-96-0P

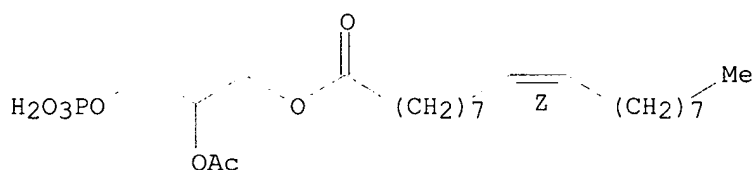
RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**hair growth** stimulants contg. **phosphatidic acids**)

IT 58-85-5, Biotin 58-95-7, D-.alpha.-**Tocopherol** acetate  
59-02-9, D-.alpha.-**Tocopherol** 79-83-4, Pantothenic

acid 79-83-4D, Pantothenic acid, derivs. 81-13-0, D-Pantothenyl  
 alcohol 137-08-6, Calcium Pantothenate 667-83-4, Pantothenyl ethyl  
 ether 867-81-2, Sodium Pantothenate 1404-26-8,  
**Polymyxin B 1935-18-8, Palmitoyl-DL-**  
**carnitine 10191-41-0, DL-.alpha.-Tocopherol**  
 16485-10-2, DL-Pantothenyl alcohol 20315-25-7,  
**Procyanidin B1 23567-23-9, Procyanidin B3**  
**29106-49-8, Procyanidin B2 37064-30-5,**  
**Procyanidin C1 37064-31-6, Procyanidin C2**  
 38304-91-5, Minoxidil 51898-34-1, DL-.alpha.-Tocopherol  
 nicotinate 52225-20-4, DL-.alpha.-Tocopherol acetate  
 58066-85-6, Hexadecylphosphocholine 121263-19-2  
 , Calphostin C 471907-74-1  
 471907-75-2 471907-76-3 471907-77-4  
 472967-99-0 472968-00-6  
 RL: COS (Cosmetic use); PAC (Pharmacological activity); THU (Therapeutic  
 use); BIOL (Biological study); USES (Uses)  
 (hair growth stimulants contg. phosphatidic  
 acids)  
 IT 84746-00-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hair growth stimulants contg. phosphatidic  
 acids)  
 IT 141436-78-4, Protein kinase C  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; hair growth stimulants contg.  
 phosphatidic acids)  
 IT 109715-96-0P  
 RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic  
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (hair growth stimulants contg. phosphatidic  
 acids)  
 RN 109715-96-0 HCAPLUS  
 CN 9-Octadecenoic acid (9Z)-, 2-(acetyloxy)-3-(phosphonoxy)propyl ester  
 (9CI) (CA INDEX NAME)

Double bond geometry as shown.

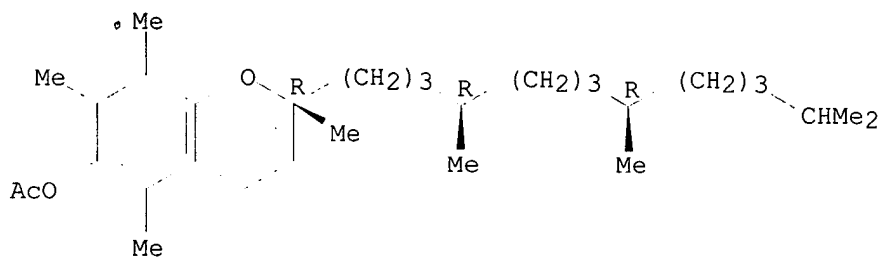


IT 58-95-7, D-.alpha.-Tocopherol acetate 59-02-9,  
 D-.alpha.-Tocopherol 1404-26-8, Polymyxin  
 B 1935-18-8, Palmitoyl-DL-carnitine  
 10191-41-0, DL-.alpha.-Tocopherol 20315-25-7,  
**Procyanidin B1 23567-23-9, Procyanidin B3**  
**29106-49-8, Procyanidin B2 37064-30-5,**  
**Procyanidin C1 51898-34-1, DL-.alpha.-Tocopherol**  
 nicotinate 52225-20-4, DL-.alpha.-Tocopherol acetate  
 58066-85-6, Hexadecylphosphocholine 121263-19-2  
 , Calphostin C 471907-74-1  
 471907-75-2 471907-76-3 471907-77-4  
 472967-99-0 472968-00-6  
 RL: COS (Cosmetic use); PAC (Pharmacological activity); THU (Therapeutic  
 use); BIOL (Biological study); USES (Uses)  
 (hair growth stimulants contg. phosphatidic  
 acids)

RN 58-95-7 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)- (9CI) (CA INDEX NAME)

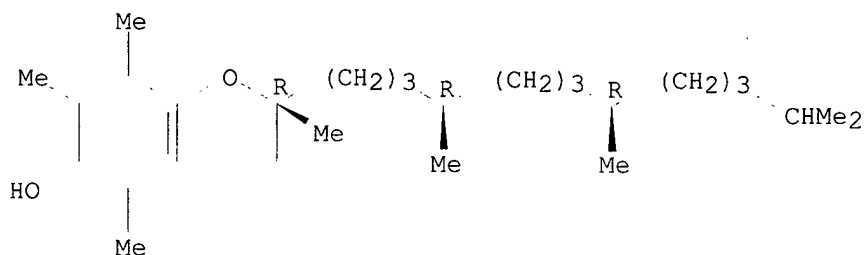
Absolute stereochemistry.



RN 59-02-9 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



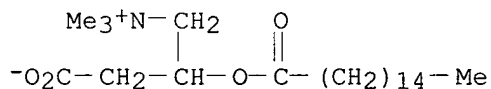
RN 1404-26-8 HCAPLUS

CN Polymyxin B (7CI, 8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

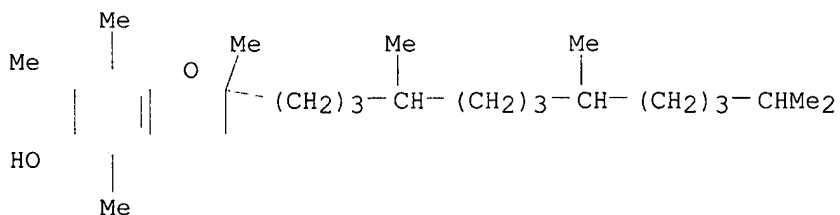
RN 1935-18-8 HCAPLUS

CN 1-Propanaminium, 3-carboxy-N,N,N-trimethyl-2-[(1-oxohexadecyl)oxy]-, inner salt (9CI) (CA INDEX NAME)



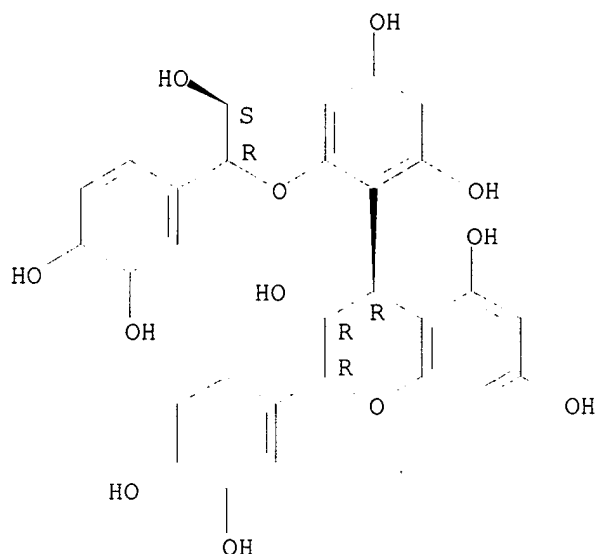
RN 10191-41-0 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)- (9CI) (CA INDEX NAME)



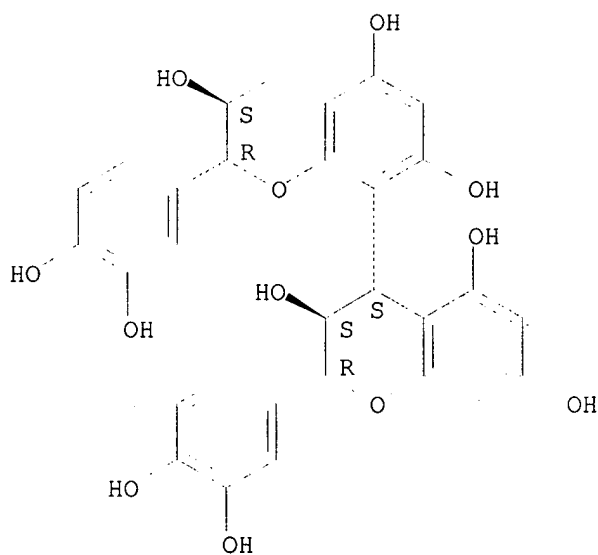
RN 20315-25-7 HCAPLUS  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 23567-23-9 HCAPLUS  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3S,3'S,4S)- (9CI) (CA INDEX NAME)

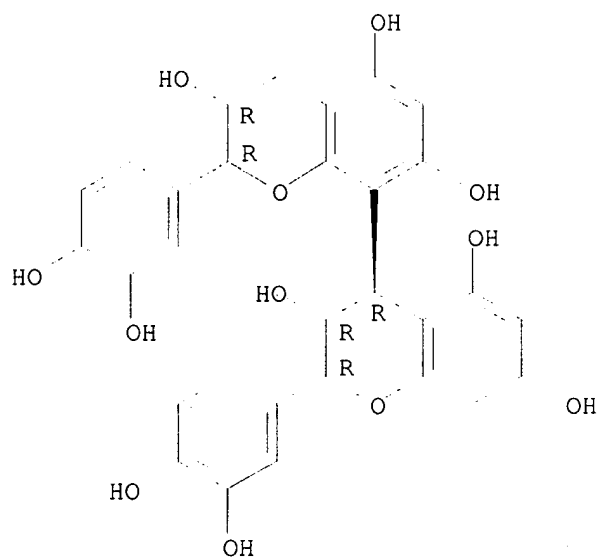
Absolute stereochemistry. Rotation (-).



RN 29106-49-8 HCAPLUS  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'R,4R)- (9CI) (CA INDEX NAME)



Absolute stereochemistry.

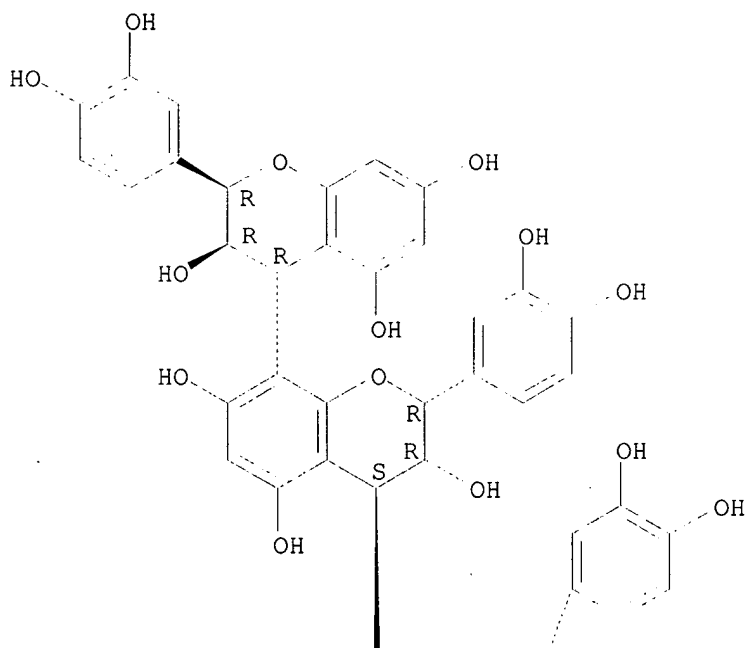


RN 37064-30-5 HCAPLUS

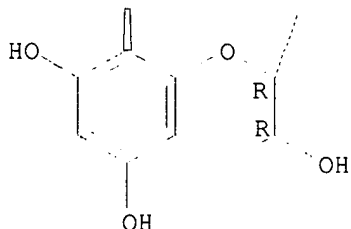
CN [4,8':4',8''-Ter-2H-1-benzopyran]-3,3',3'',5,5',5'',7,7',7''-nonol,  
2,2',2''-tris(3,4-dihydroxyphenyl)-3,3',3'',4,4',4''-hexahydro-,  
(2R,2'R,2''R,3R,3'R,3''R,4R,4'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



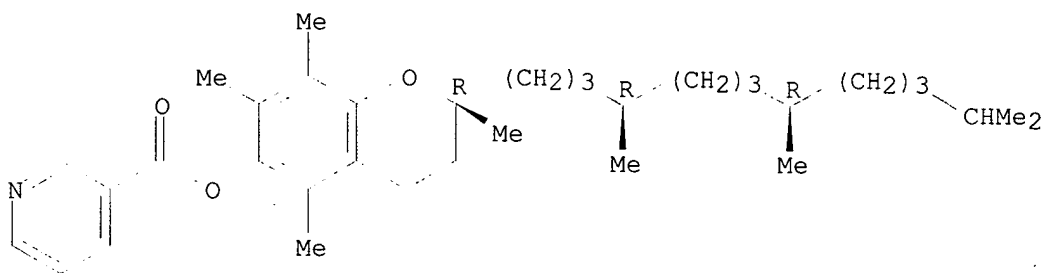
PAGE 2-A



RN 51898-34-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, (2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl ester, rel- (9CI) (CA INDEX NAME)

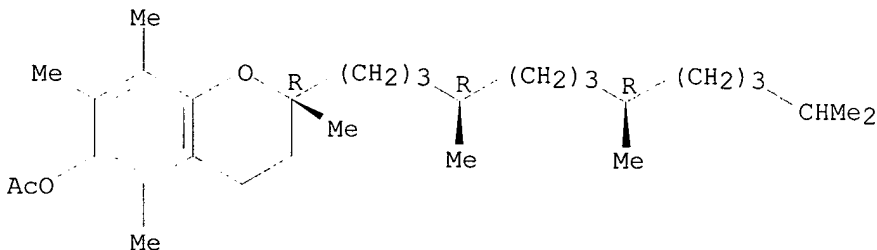
Relative stereochemistry.



RN 52225-20-4 HCAPLUS

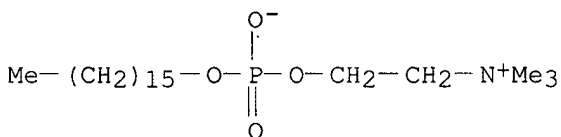
CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 58066-85-6 HCAPLUS

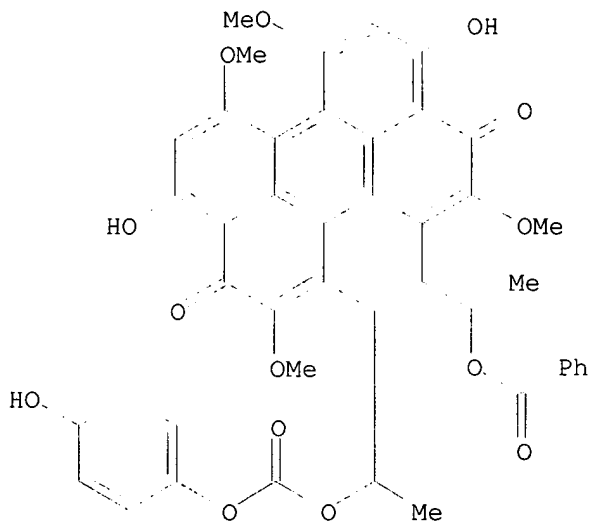
CN Ethanaminium, 2-[[{(hexadecyloxy)hydroxyphosphinyl}oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 121263-19-2 HCAPLUS

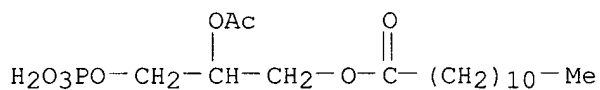
CN Carbonic acid, (1R)-2-[12-[(2R)-2-(benzoyloxy)propyl]-3,10-dihydro-4,9-dihydroxy-2,6,7,11-tetramethoxy-3,10-dioxo-1-perylenyl]-1-methylethyl

4-hydroxyphenyl ester, stereoisomer (9CI) (CA INDEX NAME)



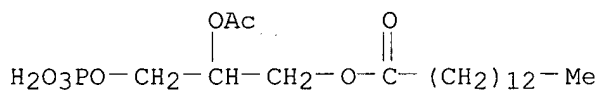
RN 471907-74-1 HCAPLUS

CN Dodecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)



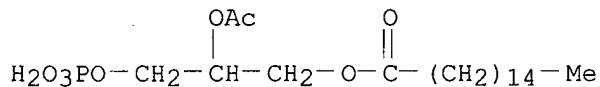
RN 471907-75-2 HCAPLUS

CN Tetradecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)



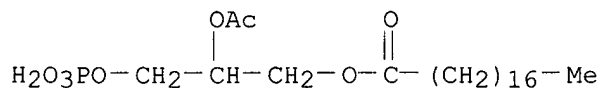
RN 471907-76-3 HCAPLUS

CN Hexadecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)



RN 471907-77-4 HCAPLUS

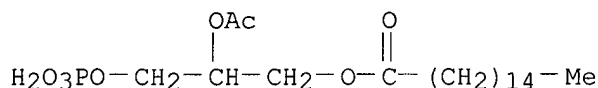
CN Octadecanoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)



RN 472967-99-0 HCAPLUS  
 CN Hexadecenoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)

CM 1

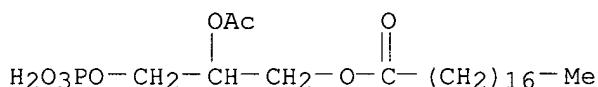
CRN 471907-76-3  
 CMF C21 H41 O8 P



RN 472968-00-6 HCAPLUS  
 CN Octadecenoic acid, 2-(acetyloxy)-3-(phosphonooxy)propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 471907-77-4  
 CMF C23 H45 O8 P



IT **141436-78-4, Protein kinase C**  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; **hair growth** stimulants contg.  
**phosphatidic acids**)

RN 141436-78-4 HCAPLUS  
 CN Kinase (phosphorylating), protein, C (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L79 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:634277 HCAPLUS  
 DN 137:174514  
 TI A phosphatidic acid **hair-growing** agent  
 IN **Kamimura, Ayako; Takahashi, Tomoya**; Mimura, Takashi;  
 Honda, Shinkichi  
 PA **Kyowa Hakko Kogyo Co., Ltd., Japan**  
 SO Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM A61K007-06  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1232740	A2	20020821	EP 2002-3132	20020214
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002316916	A2	20021031	JP 2002-32421	20020208
	US 2002172657	A1	20021121	US 2002-73113	20020212
PRAI	JP 2001-40351	A	20010216		
OS	MARPAT 137:174514				

- AB The present invention provides a **hair-growing** agent comprising, as an active ingredient, a phosphatidic acid and one or more members selected from **proanthocyanidin**, **tocopherols**, pantothenic acid and derivs., **protein kinase C** -specific inhibitors, and biotin, which promote the **hair-growing** effect of phosphatidic acid. For example, a **hair-growing** compn. was prepd. contg. 1-O-hexadecyl-2-O-methylglyceryl-3-phosphoric acid 0.4%, EtOH 70%, 1,3-butylene glycol 3%, N-acetylglutamine isostearyl ester 0.25%, and polyoxyethylene (25) glyceryl pyroglutamate isostearate 0.25%.
- ST phosphatide **proanthocyanidin** **tocopherol** pantothenate biotin **hair** stimulant
- IT **Hair preparations**  
(**growth** stimulants; **hair growth** stimulating compns. contg. phosphatidic acid and **proanthocyanidin**, **tocopherol**, pantothenic acid, **protein kinase C** inhibitor, or biotin)
- IT **Phosphatidic acids**  
**Proanthocyanidins**  
**Tocopherols**  
RL: BUU (Biological use, unclassified); COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(**hair growth** stimulating compns. contg. phosphatidic acid and **proanthocyanidin**, **tocopherol**, pantothenic acid, **protein kinase C** inhibitor, or biotin)
- IT 58-85-5, Biotin 58-95-7, D-.alpha.-**Tocopherol** acetate 59-02-9, D-.alpha.-**Tocopherol** 79-83-4, Pantothenic acid 81-13-0, D-Pantothenyl alcohol 137-08-6, Calcium pantothenate 667-83-4, Pantothenyl ethyl ether 867-81-2, Sodium pantothenate 1404-26-8, Polymyxin B 1935-18-8, Palmitoyl-DL-carnitine 10191-41-0, DL-.alpha.-**Tocopherol** 16485-10-2, DL-Pantothenyl alcohol 20315-25-7, **Procyanidin** B1 23567-23-9, **Procyanidin** B3 29106-49-8, **Procyanidin** B2 37064-30-5, **Procyanidin** C1 37064-31-6, **Procyanidin** C2 38304-91-5, Minoxidil 51898-34-1, DL-.alpha.-**Tocopherol** nicotinate 52225-20-4, DL-.alpha.-**Tocopherol** acetate 58066-85-6, Hexadecylphosphocholine 88026-89-5 121263-19-2, Calphostin C 139402-93-0 213738-65-9  
RL: BUU (Biological use, unclassified); COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(**hair growth** stimulating compns. contg. phosphatidic acid and **proanthocyanidin**, **tocopherol**, pantothenic acid, **protein kinase C** inhibitor, or biotin)
- IT 141436-78-4, **Protein kinase C**  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; **hair growth** stimulating compns. contg. phosphatidic acid and **proanthocyanidin**, **tocopherol**, pantothenic acid, **protein kinase C** inhibitor, or biotin)
- IT 58-95-7, D-.alpha.-**Tocopherol** acetate 59-02-9, D-.alpha.-**Tocopherol** 1404-26-8, Polymyxin B 1935-18-8, Palmitoyl-DL-carnitine 10191-41-0, DL-.alpha.-**Tocopherol** 20315-25-7, **Procyanidin** B1 23567-23-9, **Procyanidin** B3 29106-49-8, **Procyanidin** B2 37064-30-5, **Procyanidin** C1 51898-34-1, DL-.alpha.-**Tocopherol** nicotinate 52225-20-4, DL-.alpha.-**Tocopherol** acetate 58066-85-6, Hexadecylphosphocholine 121263-19-2, Calphostin C

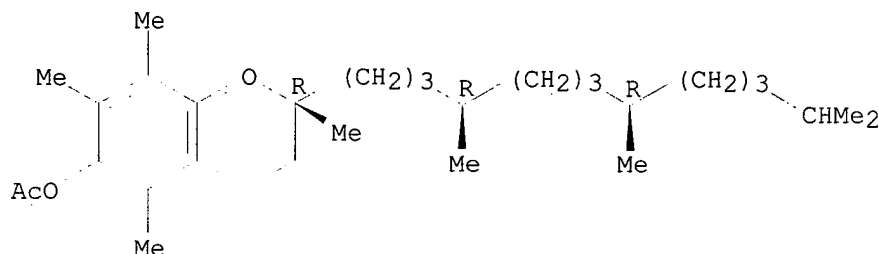
RL: BUU (Biological use, unclassified); COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair growth stimulating compns. contg.  
phosphatidic acid and proanthocyanidin, tocopherol,  
pantothenic acid, protein kinase C  
inhibitor, or biotin)

RN 58-95-7 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)- (9CI) (CA INDEX NAME)

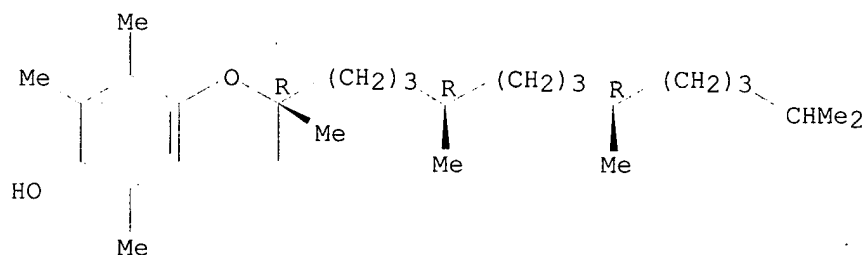
Absolute stereochemistry.



RN 59-02-9 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



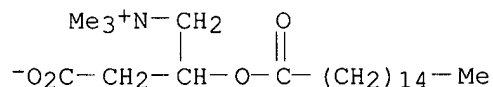
RN 1404-26-8 HCAPLUS

CN Polymyxin B (7CI, 8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

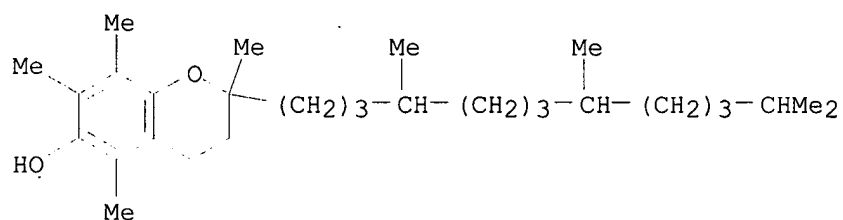
RN 1935-18-8 HCAPLUS

CN 1-Propanaminium, 3-carboxy-N,N,N-trimethyl-2-[(1-oxohexadecyl)oxy]-, inner salt (9CI) (CA INDEX NAME)



RN 10191-41-0 HCAPLUS

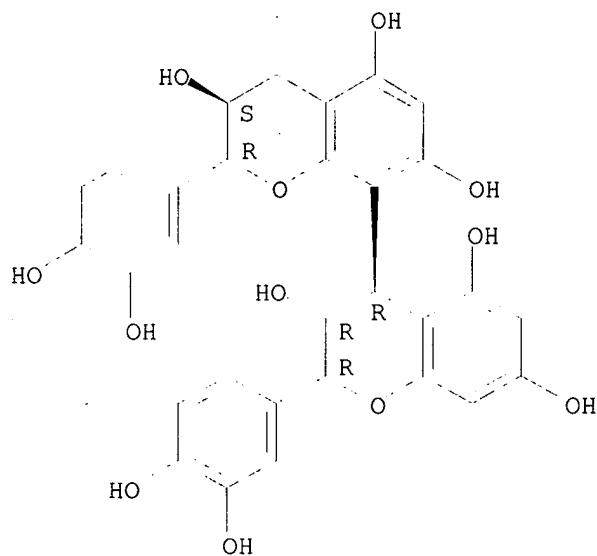
CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)- (9CI) (CA INDEX NAME)



RN 20315-25-7 HCAPLUS

CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'S,4R)- (9CI) (CA INDEX NAME)

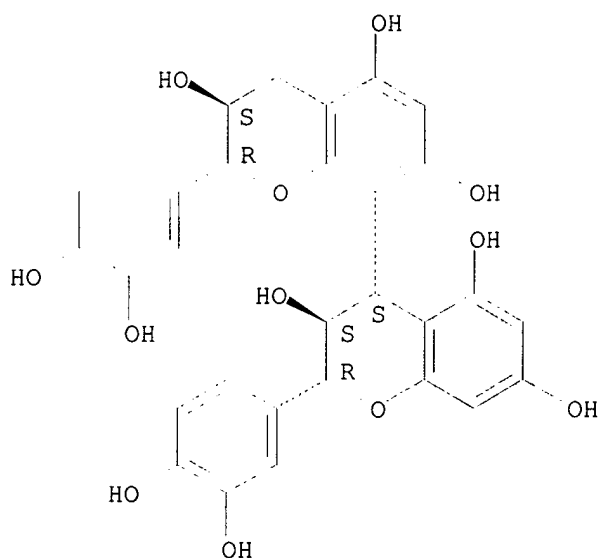
Absolute stereochemistry.



RN 23567-23-9 HCAPLUS

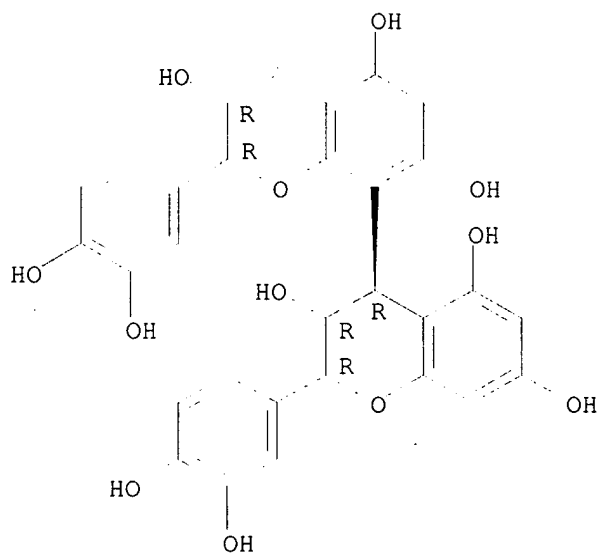
CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3S,3'S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation .(-).



RN 29106-49-8 HCAPLUS  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

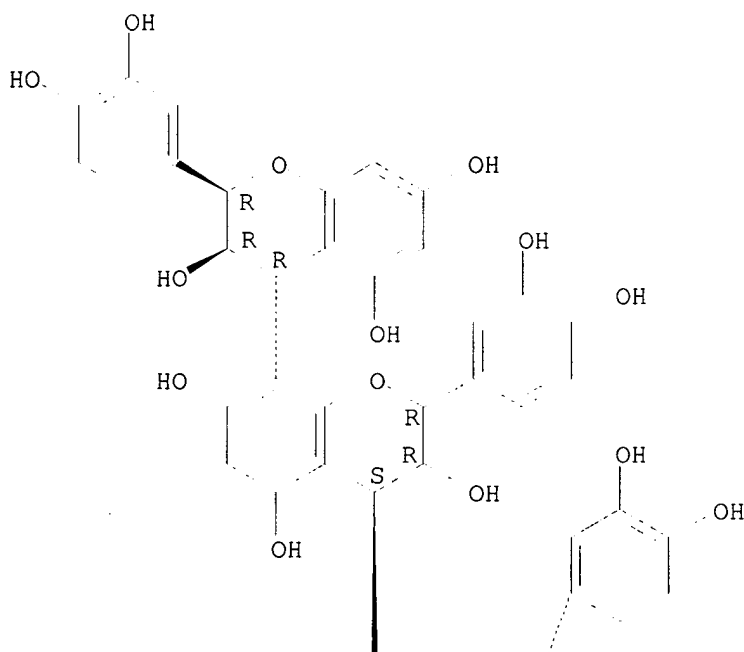


RN 37064-30-5 HCAPLUS  
 CN [4,8':4',8''-Ter-2H-1-benzopyran]-3,3',3'',5,5',5'',7,7',7''-nonol, 2,2',2''-tris(3,4-dihydroxyphenyl)-3,3',3'',4,4',4''-hexahydro-, (2R,2'R,2''R,3R,3'R,3''R,4R,4'S)- (9CI) (CA INDEX NAME)

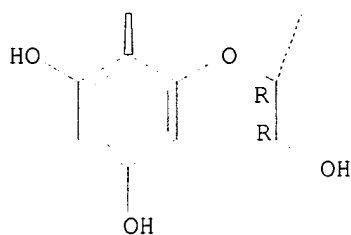
Absolute stereochemistry. Rotation (+).



PAGE 1-A



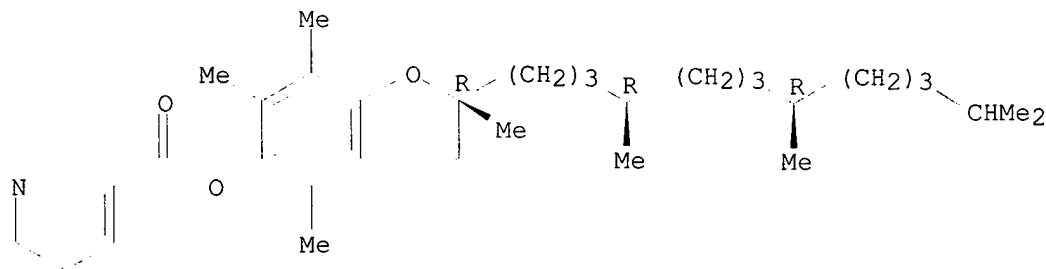
PAGE 2-A



RN 51898-34-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, (2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl ester, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

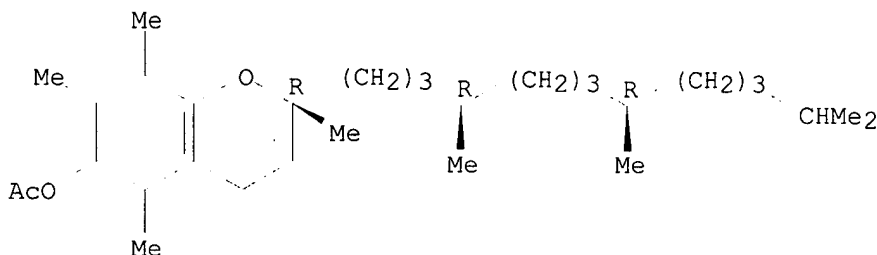


RN 52225-20-4 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-

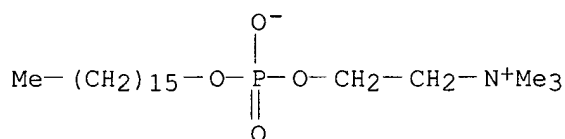
trimethyltridecyl]-, acetate, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



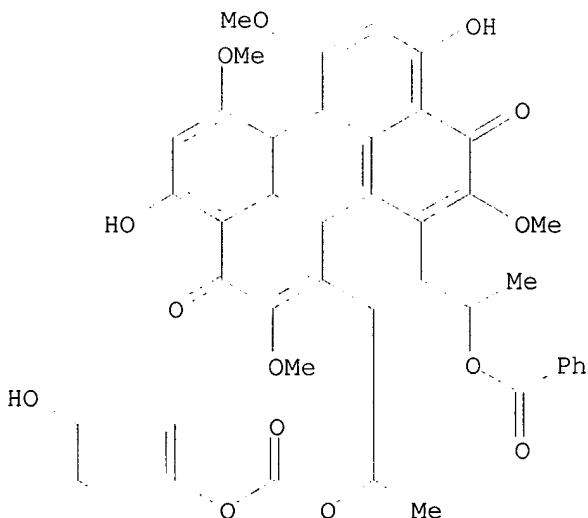
RN 58066-85-6 HCAPLUS

CN Ethanaminium, 2-[[ (hexadecyloxy)hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 121263-19-2 HCAPLUS

CN Carbonic acid, (1R)-2-[12-[(2R)-2-(benzoyloxy)propyl]-3,10-dihydro-4,9-dihydroxy-2,6,7,11-tetramethoxy-3,10-dioxo-1-perylenyl]-1-methylethyl 4-hydroxyphenyl ester, stereoisomer (9CI) (CA INDEX NAME)



IT 141436-78-4, Protein kinase C

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; hair growth stimulating compns. contg. phosphatidic acid and proanthocyanidin, tocopherol, pantothenic acid, protein kinase C inhibitor, or biotin)

RN 141436-78-4 HCAPLUS

CN Kinase (phosphorylating), protein, C (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L79 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:423391 HCAPLUS

DN 135:36936

TI **Hair growth** stimulants containing odd-numbered fatty acids and even-numbered fatty acids as additives

IN Egawa, Makoto; Yokomaku, Atsushi; Sato, Maruyasu; Udagawa, Akihiro

PA Lion Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001158719	A2	20010612	JP 1999-342631	19991201
PRAI	JP 1999-342631		19991201		

AB **Hair growth** stimulants, which have no stickiness and high low-temp. stability and do not form ppts. even between -10 and -20.degree., contain C3-25 odd-numbered fatty acids or their derivs. as active ingredients and 0.05-20% (based on the total amt. of fatty acids or their derivs.) even-numbered fatty acids or their derivs. corresponding to those derived from the odd-numbered fatty acids. A **hair tonic** was prepd. from a mixt. of glycerin monopentadecanoate and glycerin monomyristate (0.8%) 3, dl-.alpha.-**tocopherol** acetate 0.1, sorbitan coco fatty acid esters 1, sucrose myristate 0.5, biotin 0.002, succinic acid 0.3, Swertia japonica ext. 1, hinokitiol 0.1, l-menthol 0.3%, perfume, and H2O balance.

ST **hair growth** stimulant odd numbered fatty acid; pentadecanoate myristate **hair growth** stimulant; even numbered fatty acid additive **hair tonic**

IT **Hair preparations**

(**growth** stimulants; **hair growth** stimulants contg. odd-numbered fatty acids and even-numbered fatty acids to increase low-temp. stability)

IT Stabilizing agents

(**hair growth** stimulants contg. odd-numbered fatty acids and even-numbered fatty acids to increase low-temp. stability)

IT Fatty acids, biological studies

RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(**hair growth** stimulants contg. odd-numbered fatty acids and even-numbered fatty acids to increase low-temp. stability)

IT **Phosphatidic acids**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(monopentadecanoyl or monotetradecanoyl; **hair growth** stimulants contg. odd-numbered fatty acids and even-numbered fatty acids to increase low-temp. stability)

IT 112-05-0, Nonanoic acid 1002-84-2D, Pentadecanoic acid, esters with monoacyl-3-glycerolphosphoric acids 7370-46-9, Tripentadecanoin 25605-88-3, Pentadecanoic acid cholesteryl ester 28267-29-0, Ethyl tridecanoate 29063-65-8 36354-80-0, Glycerin dicaprylate 41114-00-5, Ethyl pentadecanoate 85879-32-9 104140-07-0, Glycerin monopentadecanoate 343930-09-6 343945-12-0 343945-17-5  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(**hair growth** stimulants contg. odd-numbered fatty acids and even-numbered fatty acids to increase low-temp. stability)

IT 106-33-2, Ethyl laurate 124-06-1, Ethyl myristate 124-07-2, Caprylic

acid, biological studies 334-48-5, Capric acid 544-63-8D, Tetradecanoic acid, esters with monoacyl-3-glycerolphosphoric acids, biological studies 555-45-3 601-34-3 621-71-6, Tridecanoin 628-97-7, Ethyl palmitate 1338-41-6, Sorbitan monostearate 1908-11-8, Dodecanoic acid cholesteryl ester 16715-90-5 26266-57-9, Sorbitan monopalmitate 27214-38-6, Glycerin monomyristate 27638-00-2 53988-07-1 57303-21-6 63059-79-0, Sorbitan monomyristate 100830-51-1, Glycerin monohexacosanoate 100830-53-3, Glycerin monotetracosanoate

RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(**hair growth** stimulants contg. odd-numbered fatty acids and even-numbered fatty acids to increase low-temp. stability)

L79 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:136978 HCAPLUS

DN 134:183282

TI **Hair growth** stimulants containing  
**lysophosphatidic acids** and/or **phosphatidic acids**

IN Takahashi, Tomoya; Kamimura, Ayako; Matsuoka, Takako

PA Kyowa Hakko Kogyo Co., Ltd., Japan

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001012141	A1	20010222	WO 2000-JP5542	20000818
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1214928	A1	20020619	EP 2000-953498	20000818
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRAI	JP 1999-231144	A	19990818		
	JP 2000-137711	A	20000510		
	WO 2000-JP5542	W	20000818		

OS MARPAT 134:183282

AB **Hair growth** stimulants characterized by contg. as the active ingredient at least one member selected from among **lysophosphatidic acids** and **phosphatidic acids** the fatty acid group moiety of which consists exclusively of fatty acid groups having even-numbered and linear carbon chains. A **hair growth** stimulant compn. contg. monopalmitoyllysophosphatidic acid 0.3, grape-derived **proanthocyanidin** 3, ethanol 70, 1,3-butylene glycol 3, N-acetylglutamineisostearate 0.25, polyoxyethylene(25)glyceryl pyroglutamic acid diisostearate ester 0.25 % was prepd. and tested for its **hair growth**-stimulating effect.

ST **hair growth** stimulant **lysophosphatidic acid** ester; **phosphatidic acid** ester **hair growth** stimulant

- IT **Phosphatidic acids**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(esters; hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid  
esters)
- IT **Hair preparations**  
(growth stimulants; hair growth  
stimulants contg. lysophosphatidic acid and/or  
phosphatidic acid esters)
- IT **Lysophosphatidic acids**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid  
esters)
- IT **Proanthocyanidins**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid esters  
and proanthocyanidins)
- IT **Tocopherols**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid esters  
and tocopherols)
- IT **14268-17-8, Dioleoyl phosphatidic acid 22002-85-3,  
1-Palmitoyllysophosphatidic acid 79806-85-2, Dilauroyl  
phosphatidic acid**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid  
esters)
- IT **20315-25-7, Proanthocyanidin B1 23567-23-9,  
Proanthocyanidin B3 29106-49-8, Proanthocyanidin  
B2 37064-30-5, Proanthocyanidin c1**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid esters  
and proanthocyanidins)
- IT **1404-26-8, Polymyxin B 1935-18-8,  
Palmitoyl-carnitine 58066-85-6,  
Hexadecylphosphocholine 121263-19-2, Calphostin  
C**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid esters  
and protein kinase C inhibitors)
- IT **58-95-7, d-.alpha.-Tocopherol acetate 59-02-9,  
d-.alpha.-Tocopherol 2074-53-5, dl-.alpha.-  
Tocopherol 51898-34-1, dl-.alpha.-Tocopherol  
nicotinate 52225-20-4, dl-.alpha.-Tocopherol acetate**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair growth stimulants contg.  
lysophosphatidic acid and/or phosphatidic acid esters  
and tocopherols)
- IT **141436-78-4, Protein kinase C**

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitor; **hair growth** stimulants contg.  
**lysophosphatidic acid** and/or phosphatidic acid esters  
 and **protein kinase C** inhibitors)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

- (1) Kastell; JP 57165309 A HCAPLUS
- (2) Kastell; EP 60933 A HCAPLUS
- (3) Kastell; US 4515778 A 1985 HCAPLUS
- (4) Kyowa Hakko Kogyo Co Ltd; JP 09315947 A HCAPLUS
- (5) Kyowa Hakko Kogyo Co Ltd; EP 768079 A HCAPLUS
- (6) Kyowa Hakko Kogyo Co Ltd; WO 9600561 A 1996 HCAPLUS
- (7) Kyowa Hakko Kogyo Co Ltd; EP 797978 A 1997 HCAPLUS
- (8) Lang; DE 4113346 A 1992 HCAPLUS
- (9) Lion Corporation; JP 5927809 A
- (10) Lion Corporation; EP 102534 A 1984 HCAPLUS

IT 14268-17-8, Dioleoyl phosphatidic acid 22002-85-3,  
 1-Palmitoyllysophosphatidic acid 79806-85-2, Dilauroyl  
 phosphatidic acid

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)

(**hair growth** stimulants contg.

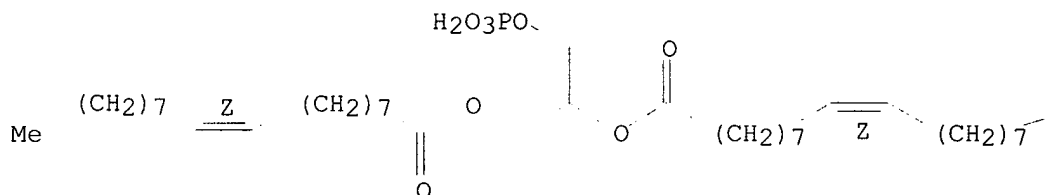
**lysophosphatidic acid** and/or phosphatidic acid  
 esters)

RN 14268-17-8 HCAPLUS

CN 9-Octadecenoic acid (9Z)-, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester  
 (9CI) (CA INDEX NAME)

Double bond geometry as shown.

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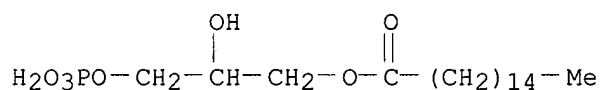


PAGE 1-B

Me

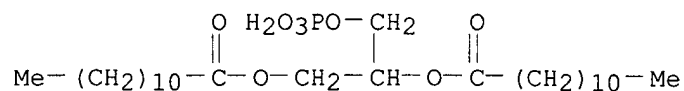
RN 22002-85-3 HCAPLUS

CN Hexadecanoic acid, 2-hydroxy-3-(phosphonooxy)propyl ester (9CI) (CA INDEX  
 NAME)



RN 79806-85-2 HCAPLUS

CN Dodecanoic acid, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester (9CI) (CA  
 INDEX NAME)



IT 20315-25-7, Proanthocyanidin B1 23567-23-9,  
Proanthocyanidin B3 29106-49-8, Proanthocyanidin  
B2 37064-30-5, Proanthocyanidin c1  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

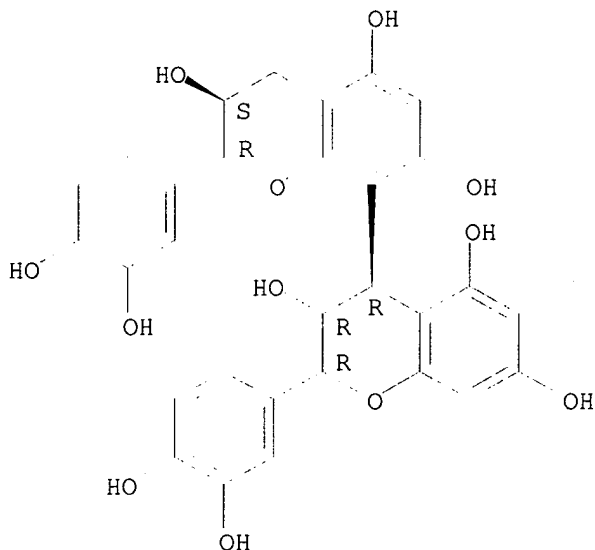
(hair growth stimulants contg.

lysophosphatidic acid and/or phosphatidic acid esters  
and proanthocyanidins)

RN 20315-25-7 HCAPLUS

CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-  
dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'S,4R)- (9CI) (CA  
INDEX NAME)

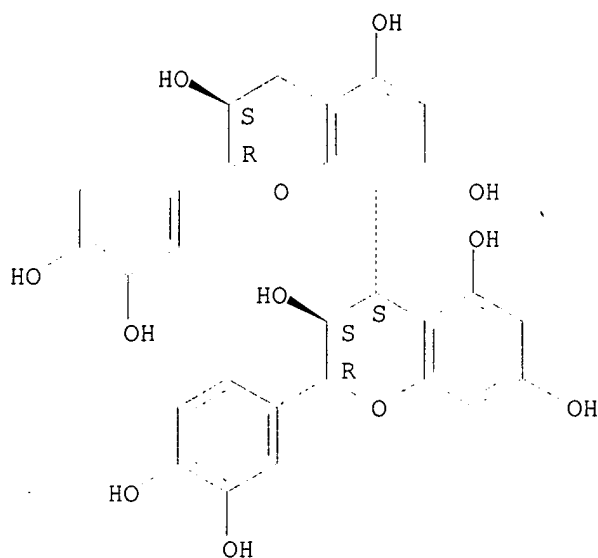
Absolute stereochemistry.



RN 23567-23-9 HCAPLUS

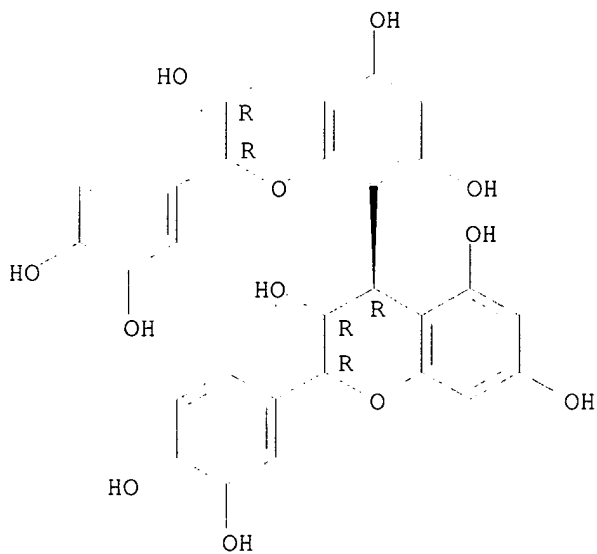
CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-  
dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3S,3'S,4S)- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 29106-49-8 HCAPLUS  
 CN [4,8'-Bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol, 2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-, (2R,2'R,3R,3'R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

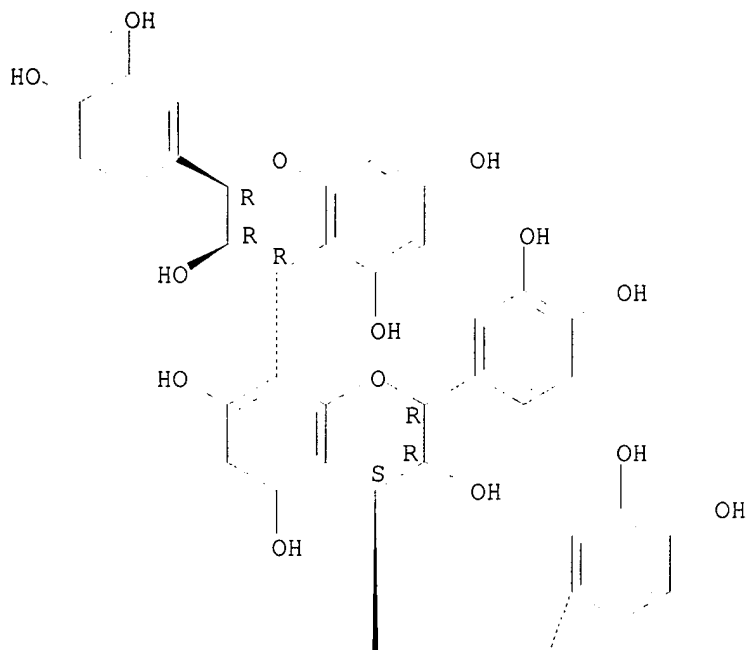


RN 37064-30-5 HCAPLUS  
 CN [4,8':4'',8'''-Ter-2H-1-benzopyran]-3,3',3'',5,5',5'',7,7',7'''-nonol, 2,2',2'''-tris(3,4-dihydroxyphenyl)-3,3',3'',4,4',4'''-hexahydro-, (2R,2'R,2'''R,3R,3'R,3'''R,4R,4'S)- (9CI) (CA INDEX NAME)

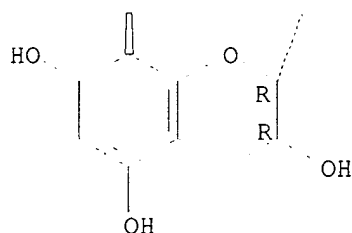
Absolute stereochemistry. Rotation (+).



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PAGE 2-A



IT 1404-26-8, Polymyxin B 1935-18-8,  
 Palmitoyl-carnitine 58066-85-6,  
 Hexadecylphosphocholine 121263-19-2, Calphostin  
 C

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)

(hair growth stimulants contg.

lysophosphatidic acid and/or phosphatidic acid esters  
 and protein kinase C inhibitors)

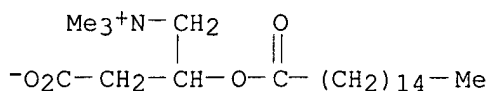
RN 1404-26-8 HCAPLUS

CN Polymyxin B (7CI, 8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

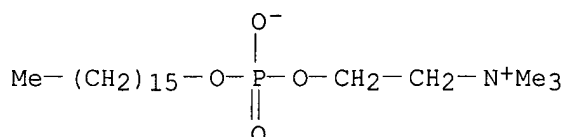
RN 1935-18-8 HCAPLUS

CN 1-Propanaminium, 3-carboxy-N,N,N-trimethyl-2-[(1-oxohexadecyl)oxy]-, inner  
 salt (9CI) (CA INDEX NAME)



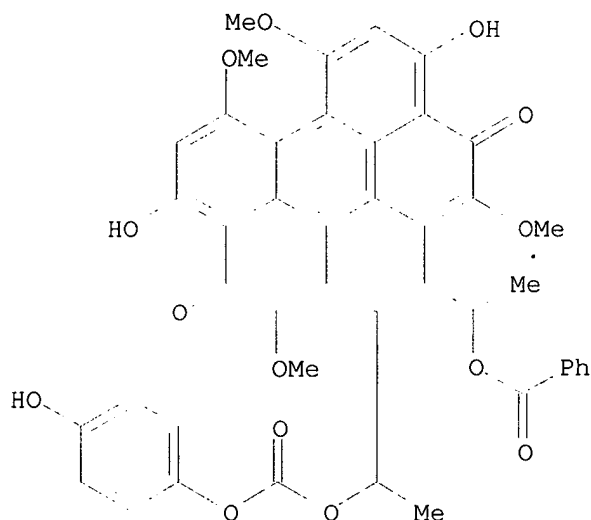
RN 58066-85-6 HCAPLUS

CN Ethanaminium, 2-[[ (hexadecyloxy)hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 121263-19-2 HCAPLUS

CN Carbonic acid, (1R)-2-[12-[(2R)-2-(benzoyloxy)propyl]-3,10-dihydro-4,9-dihydroxy-2,6,7,11-tetramethoxy-3,10-dioxo-1-perylenyl]-1-methylethyl 4-hydroxyphenyl ester, stereoisomer (9CI) (CA INDEX NAME)



IT 58-95-7, d-.alpha.-Tocopherol acetate 59-02-9,

d-.alpha.-Tocopherol 2074-53-5, dl-.alpha.-

Tocopherol 51898-34-1, dl-.alpha.-Tocopherol

nicotinate 52225-20-4, dl-.alpha.-Tocopherol acetate

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

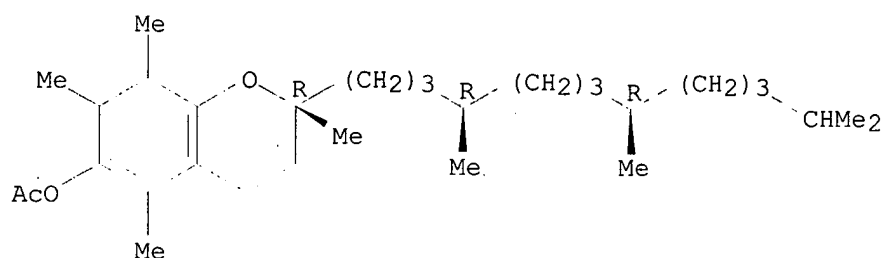
(hair growth stimulants contg.

lysophosphatidic acid and/or phosphatidic acid esters and tocopherols)

RN 58-95-7 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)- (9CI) (CA INDEX NAME)

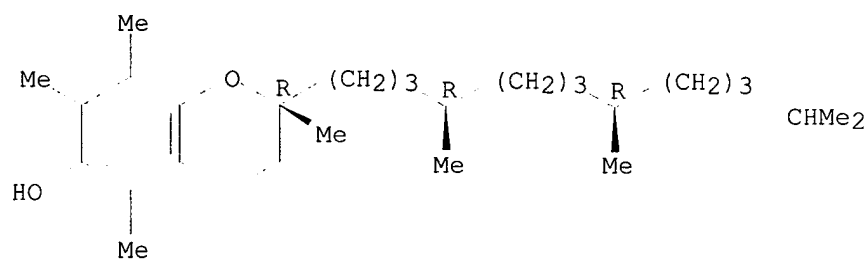
Absolute stereochemistry.



RN 59-02-9 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)- (9CI) (CA INDEX NAME)

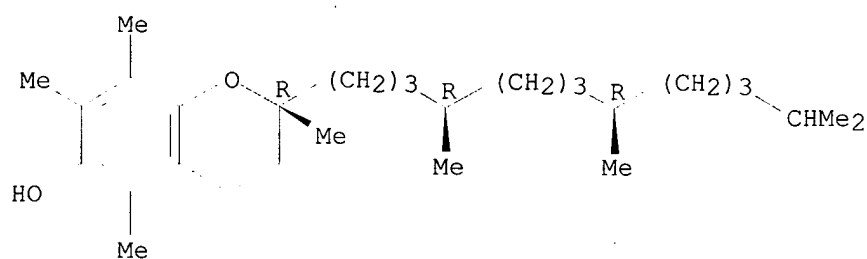
Absolute stereochemistry.



RN 2074-53-5 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)-rel- (9CI) (CA INDEX NAME)

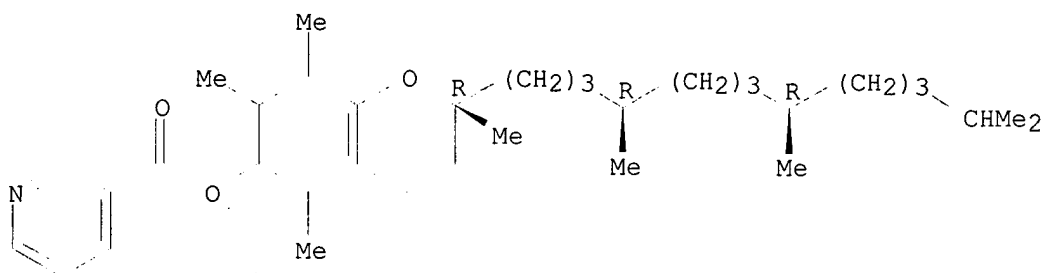
Relative stereochemistry.



RN 51898-34-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, (2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl ester, rel- (9CI) (CA INDEX NAME)

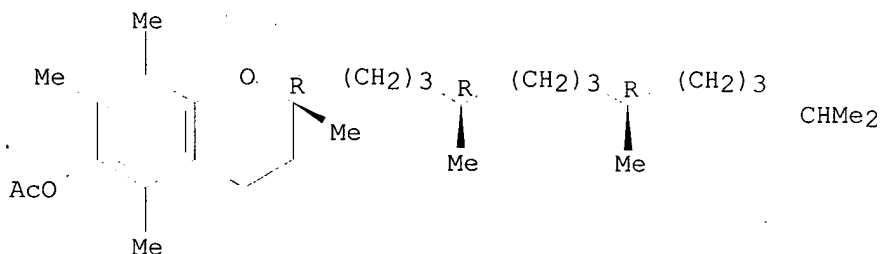
Relative stereochemistry.



RN 52225-20-4 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 141436-78-4, Protein kinase C

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitor; hair growth stimulants contg.

lysophosphatidic acid and/or phosphatidic acid esters and protein kinase C inhibitors)

RN 141436-78-4 HCAPLUS

CN Kinase (phosphorylating), protein, C (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L79 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:456858 HCAPLUS

DN 133:94512

TI Improved formulation for topical non-invasive application in vivo

IN Cevc, Gregor

PA Idea Innovative Dermale Applikationen G.m.b.H., Germany

SO PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K009-127

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000038653	A1	20000706	WO 1998-EP8421	19981223
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,				

FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2356080	AA	20000706	CA 1998-2356080	19981223
AU 9925137	A1	20000731	AU 1999-25137	19981223
EP 1140021	A1	20011010	EP 1998-966846	19981223

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

BR 9816113	A	20011023	BR 1998-16113	19981223
JP 2002533379	T2	20021008	JP 2000-590607	19981223
NO 2001003164	A	20010822	NO 2001-3164	20010622
US 2002064524	A1	20020530	US 2001-887493	20010622

PRAI WO 1998-EP8421 A 19981223

OS MARPAT 133:94512

AB A formulation comprises mol. arrangements capable of penetrating pores in a barrier, owing to penetrant adaptability, despite the fact that the av. diam. of the pores is smaller than the av. penetrant diam., provided that the penetrants can transport agents or cause permeation through the pores after penetrants have entered pores. The formulation comprises at least 1 consistency builder in an amt. that increases the formulation to maximally 5 Nm/s so that spreading over is enabled. The formulation also contains 1 antioxidant in an amt. that reduces the increase of oxidn. index to <100% per 6 mo and/or at least 1 microbicide in an amt. that reduces the bacterial count of 1 million germs added/g of total mass of the formulation to <100 in the case of aerobic bacteria, to <10 in the case of entero-bacteria, and to <1 in the case of Pseudomonas aeruginosa or Staphylococcus aureus, after a period of 4 days. Thus, a compn. contained soybean phosphatidylcholine 347, Tween-80 623, sodium dodecyl sulfate 30, benzyl alc. 50, clobetasol 17-propionate 25 and pH 6.5 50 mM phosphate buffer 9000 mg.

ST topical penetrating formulation noninvasive surfactant phospholipid

IT Eye, disease

IT Eye, disease

IT Graves' disease

IT Graves' disease

(Graves' ophthalmopathy; penetrating formulation for topical non-invasive application in vivo)

IT Blood vessel, disease

(Kawasaki; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(alkylbenzyltrimethyl, bromides; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(alkylbenzyltrimethyl, chlorides; penetrating formulation for topical non-invasive application in vivo)

IT Surfactants

(anionic; penetrating formulation for topical non-invasive application in vivo)

IT Amines, biological studies

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(arom.; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bromides; penetrating formulation for topical non-invasive application in vivo)

IT Ion channel blockers

(calcium; penetrating formulation for topical non-invasive application in vivo)

IT Surfactants

(cationic; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(chlorides; penetrating formulation for topical non-invasive application in vivo)

IT Brain, disease  
(edema; penetrating formulation for topical non-invasive application in vivo)

IT Cinnamon (spice)  
Clove (Syzygium aromaticum)  
Oregano  
Rosemary  
Sage (Salvia)  
(ext.; penetrating formulation for topical non-invasive application in vivo)

IT Kidney, disease  
Liver, disease  
(failure; penetrating formulation for topical non-invasive application in vivo)

IT Alcohols, biological studies  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(fatty; penetrating formulation for topical non-invasive application in vivo)

IT Oat  
(flour ext.; penetrating formulation for topical non-invasive application in vivo)

IT Blood vessel, neoplasm  
(hemangioma; penetrating formulation for topical non-invasive application in vivo)

IT Castor oil  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hydrogenated, ethoxylated; penetrating formulation for topical non-invasive application in vivo)

IT Flavones  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hydroxy; penetrating formulation for topical non-invasive application in vivo)

IT Cinnamon (spice)  
(mace, ext.; penetrating formulation for topical non-invasive application in vivo)

IT Erythema  
(multiforme; penetrating formulation for topical non-invasive application in vivo)

IT Nerve, disease  
(neuralgia; penetrating formulation for topical non-invasive application in vivo)

IT Surfactants  
(nonionic; penetrating formulation for topical non-invasive application in vivo)

IT Anti-inflammatory agents  
(nonsteroidal; penetrating formulation for topical non-invasive application in vivo)

IT Cinnamon (spice)  
(nutmeg, ext.; penetrating formulation for topical non-invasive application in vivo)

IT Flavonoids  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(oxo dihydro; penetrating formulation for topical non-invasive application in vivo)

IT Pancreas, disease

- (pancreatitis; penetrating formulation for topical non-invasive application in vivo)
- IT Skin, disease  
(pemphigus; penetrating formulation for topical non-invasive application in vivo)
- IT **Alopecia**  
Anemia (disease)  
Antiarrhythmics  
Antioxidants  
Asthma  
Bone, disease  
Cataract  
Chelating agents  
Dermatomyositis  
Eczema  
Epilepsy  
Gums and Mucilages  
Lupus erythematosus  
Mononucleosis  
Myasthenia gravis  
Nausea  
Osteoarthritis  
Permeation enhancers  
Psoriasis  
Sarcoidosis  
Skin, disease  
Surfactants  
Thyroid gland, disease  
Urticaria  
(penetrating formulation for topical non-invasive application in vivo)
- IT Amines, biological studies  
Betaines  
Ceramides  
Cerebrosides  
Collagens, biological studies  
Fatty acids, biological studies  
Gangliosides  
Gelatins, biological studies  
Glycolipids  
Glycosides  
Lipids, biological studies  
Lysophospholipids  
Phenols, biological studies  
**Phosphatidic acids**  
Phosphatidylcholines, biological studies  
Phosphatidylethanolamines, biological studies  
Phosphatidylglycerols  
Phosphatidylinositols  
Phosphatidylserines  
Phospholipids, biological studies  
Plasmalogens  
Polymers, biological studies  
Polyoxyalkylenes, biological studies  
Polysiloxanes, biological studies  
Sphingomyelins  
Sphingosines  
Sulfatides  
**Tocopherols**  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(penetrating formulation for topical non-invasive application in vivo)
- IT Albumins, biological studies  
Anthocyanins

Corticosteroids, biological studies  
Ferritins  
Flavonoids  
Haptoglobin  
Hemopexins  
Lactoferrins  
Quaternary ammonium compounds, biological studies  
Steroids, biological studies  
Tannins  
Transferrins  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(penetrating formulation for topical non-invasive application in vivo)

IT Amines, biological studies  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(phenylalkyl; penetrating formulation for topical non-invasive  
application in vivo)

IT Sphingolipids  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(phosphosphingolipids; penetrating formulation for topical non-invasive  
application in vivo)

IT Polyoxyalkylenes, biological studies  
Polyoxyalkylenes, biological studies  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(polyester-; penetrating formulation for topical non-invasive  
application in vivo)

IT Muscle, disease  
(polymyalgia rheumatica; penetrating formulation for topical  
non-invasive application in vivo)

IT Muscle, disease  
(polymyositis; penetrating formulation for topical non-invasive  
application in vivo)

IT Nerve, disease  
(polyneuropathy; penetrating formulation for topical non-invasive  
application in vivo)

IT Polyesters, biological studies  
Polyesters, biological studies  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(polyoxyalkylene-; penetrating formulation for topical non-invasive  
application in vivo)

IT Rheumatic diseases  
(rheumatoid disease; penetrating formulation for topical non-invasive  
application in vivo)

IT Nose  
(rhinitis; penetrating formulation for topical non-invasive application  
in vivo)

IT Alcohols, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(short-chain; penetrating formulation for topical non-invasive  
application in vivo)

IT Phosphatidylcholines, biological studies  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(soya; penetrating formulation for topical non-invasive application in  
vivo)

IT Glycosides  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(thioglycosides; penetrating formulation for topical non-invasive  
application in vivo)



- IT Drug delivery systems  
(topical; penetrating formulation for topical non-invasive application in vivo)
- IT Blood vessel, disease  
(vasculitis; penetrating formulation for topical non-invasive application in vivo)
- IT Surfactants  
(zwitterionic; penetrating formulation for topical non-invasive application in vivo)
- IT Adrenoceptor antagonists  
(.beta.-; penetrating formulation for topical non-invasive application in vivo)
- IT 158606-68-9, Polyaspartamide  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hydrazine crosslinked; penetrating formulation for topical non-invasive application in vivo)
- IT 7440-70-2, Calcium, biological studies  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(hypercalcemia; penetrating formulation for topical non-invasive application in vivo)
- IT 50-06-6, Phenobarbital, biological studies 50-33-9, Phenylbutazone, biological studies 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic Acid, biological studies 50-99-7, Glucose, biological studies 52-67-5, Penicillamine 53-86-1, Indomethacin 54-05-7, Chloroquine 54-64-8, Thiomersal 55-56-1, Chlorhexidine 55-68-5, Phenylmercuric nitrate 56-81-5, Glycerol, biological studies 57-15-8, Chlorbutanol 59-02-9, .alpha.-**Tocopherol** 59-05-2, Methotrexate 59-50-7, 4-Chloro-m-cresol 60-00-4, EDTA, biological studies 61-68-7, Mefenamic acid 62-38-4, Phenylmercuric acetate 62-56-6, Thiourea, biological studies 64-17-5, Ethyl alcohol, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-68-5D, DMSO, alkyl derivs. 69-72-7, Salicylic Acid, biological studies 69-93-2, Uric acid, biological studies 70-18-8, Glutathione, biological studies 70-30-4, Hexachlorophene 81-24-3D, salts 81-25-4D, salts 83-44-3D, salts 83-89-6, Quinacrine 86-74-8, Carbazole 89-65-6 90-05-1, Guaiacol 90-34-6, Primaquine 94-13-3, Propylparaben 94-18-8, Benzylparaben 94-26-8, Butylparaben 97-23-4, Dichlorophene 99-50-3, Protocatechuic Acid 99-76-3, Methylparaben 100-51-6, Benzyl alcohol, biological studies 102-98-7, Phenylmercuric borate 103-90-2, Acetaminophen 107-15-3D, Ethylenediamine, derivs. 107-21-1, Ethylene glycol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 112-53-8, 1-Dodecanol 112-80-1, Oleic acid, biological studies 118-42-3, Hydroxychloroquine 119-13-1, .delta.-**Tocopherol** 120-47-8, Ethylparaben 121-33-5, Vanillin 121-79-9, Propyl Gallate 122-39-4, Diphenylamine, biological studies 123-03-5, Cetylpyridinium chloride 123-31-9, Hydroquinone, biological studies 128-37-0, BHT, biological studies 129-20-4, Oxyphenbutazone 137-66-6 138-14-7, Desferal 141-78-6, EtOAc, biological studies 143-19-1, Sodium oleate 143-28-2, Oleyl alcohol 148-03-8, .beta.-**Tocopherol** 149-91-7, Gallic Acid, biological studies 151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 360-65-6D, salts 446-86-6, Azathioprine 475-31-0D, salts 476-66-4, Ellagic Acid 484-78-6, 3-Hydroxykynurenine 490-79-9, Gentisic acid 500-38-9, Nordihydroguaiaretic Acid 516-50-7D, salts 525-66-6, Propranolol 530-57-4, Syringic Acid 530-59-6, Sinapic acid 530-78-9, Flufenamic acid 534-61-2, IsoChlorogenic acid 538-71-6, Phenododecinium bromide 548-93-6, 3-Hydroxyanthranilic acid 616-91-1, N-Acetylcysteine 621-82-9, Cinnamic acid, biological studies 629-25-4, Sodium laurate 635-65-4, Bilirubin, biological studies 822-17-3, Sodium linoleate 1118-68-9D, Dimethylglycine, alkyl derivs. 1135-24-6, Ferulic acid 1319-77-3, Cresol 1643-20-5, Dodecyldimethylamine oxide 1948-33-0, tert-Butylhydroquinone

1951-25-3, Amiodarone 2002-22-4D, derivs. 2495-84-3 3650-09-7,  
 Carnosic acid 4353-06-4 5432-30-4 5677-55-4, Ubiquinol-10  
 5957-80-2, Carnosol 7235-40-7, .beta.-Carotene 7347-25-3, Sodium  
 taurate 7616-22-0, .gamma.-**Tocopherol** 7631-90-5, Sodium  
 bisulphite 7681-57-4, Sodium metabisulfite 7747-53-7 9000-07-1,  
 Carrageenan 9000-30-0, Guar-gum 9000-65-1, Tragacanth 9000-69-5,  
 Pectin 9001-05-2, Catalase 9002-88-4, Polyethylene 9002-89-5,  
 Polyvinyl alcohol 9002-92-0, Polyethylene glycol dodecyl ether  
 9002-96-4 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl  
 cellulose sodium salt 9004-34-6D, Cellulose, derivs., biological studies  
 9004-61-9, Hyaluronic Acid 9004-62-0, Hydroxyethyl cellulose  
 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropylmethyl  
 cellulose 9004-67-5, Methyl cellulose 9004-98-2, Polyethylene glycol  
 oleyl ether 9004-99-3, Myrj 45 9005-32-7, Alginic acid 9005-64-5,  
 Tween 20 9005-65-6, Tween 80 9012-36-6, Agarose 9012-76-4, Chitosan  
 9013-66-5, Glutathione peroxidase 9036-19-5, Polyethylene glycol  
 octylphenyl ether 9043-30-5, Polyethylene glycol isotridecyl ether  
 9054-89-1, Superoxide dismutase 9086-85-5, Poly(hydroxypropyl)  
 methacrylate 10540-29-1, Tamoxifen 11138-66-2, Xanthan 12041-76-8,  
 Dichlorobenzylalcohol 15307-86-5, Diclofenac 15687-27-1, Ibuprofen  
 16409-34-0, Sodium glycodeoxycholate 16690-40-7 18175-45-6, Sodium  
 elaidate 18472-51-0, Chlorhexidine gluconate 18683-91-5, Ambroxol  
 19767-45-4, Mesna 20283-92-5, Rosmarinic acid 20902-45-8,  
 Penicillamine disulfide 21829-25-4, Nifedipine 22071-15-4, Ketoprofen  
 22204-53-1, Naproxen 22494-42-4, Diflunisal 23288-49-5, Probuco  
 25013-16-5, BHA 25014-41-9, Polyacrylonitrile 25249-16-5 25322-68-3,  
 PEG 25429-38-3, Coumaric acid 25655-41-8, Povidone-iodine  
 26570-48-9, Polyethylene glycol-diacrylate 26746-38-3,  
 Di-tert-butylphenol 27306-76-9, Polyethylene glycol cetyl stearyl ether  
 27306-79-2, Polyethylene glycol myristyl ether 29122-68-7, Atenolol  
 29349-22-2, Chlorobenzyl alcohol 33425-76-2 36322-90-4, Piroxicam  
 36413-60-2, Quinic Acid 37640-71-4, Aprindine 53188-07-1, Trolox  
 53584-19-3 55985-32-5, Nicardipine 59227-89-3, Azone 63675-72-9,  
 Nisoldipine 66085-59-4, Nimodipine 68047-06-3, Hydroxytamoxifen  
 68555-46-4 75530-68-6, Nilvadipine 77400-65-8, Asocainol 85261-20-7,  
 Decanoyl N-methylglucamide 87246-72-8 88306-53-0 90522-12-6  
 91729-95-2, Rosmaridiphenol 99716-88-8, Methallylsulfonic acid  
 homopolymer 106392-12-5, Poloxamer 110101-67-2, U74006F 118457-14-0,  
 Nebivolol 121869-32-7 148081-72-5, 1-O-Hexyl-2,3,5-  
 trimethylhydroquinone

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(penetrating formulation for topical non-invasive application in vivo)

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone 21-acetate 50-22-6,  
 Corticosterone 50-23-7, Hydrocortisone 50-24-8, Prednisolone  
 53-03-2, Prednisone 53-06-5, Cortisone 53-36-1, Methylprednisolone  
 acetate 57-83-0, Progesterone, biological studies 64-85-7,  
 Deoxycorticosterone 67-73-2, Fluocinolone acetonide 68-96-2,  
 17.alpha.-Hydroxyprogesterone 76-25-5, Triamcinolone acetonide  
 79-60-7, 9.alpha.-Fluorocortisone 94-41-7D, Chalcone, derivs. 124-94-7  
 , Triamcinolone 127-31-1, 9.alpha.-Fluorohydrocortisone 152-58-9,  
 Cortexolone 152-97-6, Fluocortolone 338-95-4 356-12-7, Fluocinonide  
 378-44-9, Betamethasone 382-67-2, Desoxymethasone 638-94-8, Desonide  
 1255-35-2, Fluprednidene acetate 1524-88-5, Flurandrenolone 1879-77-2,  
 21-Deoxybetamethasone 2002-29-1, Flumethasone pivalate 2152-44-5,  
 Betamethasone 17-valerate 2240-28-0, Betamethasone 21-valerate  
 3093-35-4, Halcinonide 3693-39-8, Fluclorolone acetonide 4351-48-8  
 5534-09-8, Beclomethasone dipropionate 5593-20-4, Betamethasone  
 dipropionate 6677-98-1, Hydrocortisone 21-propionate 6677-99-2,  
 Hydrocortisone 21-butyrate 6678-00-8, Hydrocortisone 21-valerate  
 9031-37-2, Ceruloplasmin 13609-67-1, Hydrocortisone 17-butyrate  
 16463-74-4, Hydrocortisone 17-acetate 22298-29-9, Betamethasone benzoate  
 25122-41-2, Clobetasol 25122-46-7, Clobetasol propionate 25122-57-0,

Clobetasone butyrate 33564-31-7, Diflorasone diacetate 38196-44-0,  
 Betamethasone 17,21-divalate 38196-45-1, Prednisone 17-valerate  
 39791-38-3, Cortisone 17-acetate 41767-29-7, Fluocortin butyl  
 51022-69-6, Amcinonide 51333-22-3, Budesonide 56933-60-9,  
 Betamethasone 21-butyrate 57524-89-7, Hydrocortisone 17-valerate  
 59198-70-8, Diflucortolone valerate 65980-97-4, Hydrocortisone  
 17-propionate 66734-13-2, Alclometasone dipropionate 75883-07-7,  
 Betamethasone 21-propionate 83919-23-7, Mometasone furoate 95440-71-4,  
 Prednisone 17-acetate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (penetrating formulation for topical non-invasive application in vivo)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Cevc Gregor; WO 9203122 A 1992 HCAPLUS
- (2) Cevc Gregor; DE 4447287 C 1996 HCAPLUS
- (3) Nikko Chemicals; EP 0220797 A 1987 HCAPLUS

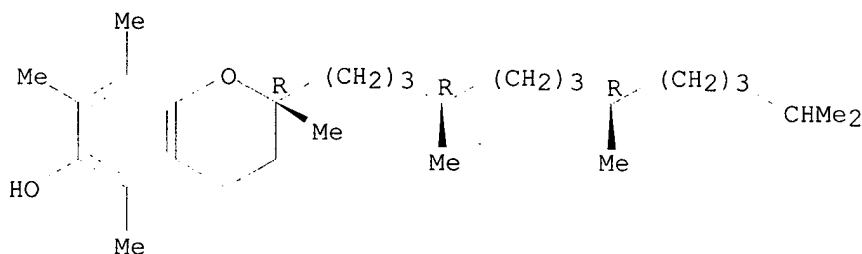
IT 59-02-9, .alpha.-Tocopherol

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (penetrating formulation for topical non-invasive application in vivo)

RN 59-02-9 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L79 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:456698 HCAPLUS

DN 133:63637

TI Nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof  
 in the fields of cosmetics, dermatology and/or ophthalmology

IN Simmonet, Jean-Thierry; Sonnevile, Odile; Legret, Sylvie

PA L'Oreal, Fr.

SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DT Patent

LA French

IC ICM B01F017-00

ICS A61K007-00

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1016453	A1	20000705	EP 1999-402855	19991117
	EP 1016453	B1	20010905		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	FR 2787703	A1	20000630	FR 1998-16570	19981229
	FR 2787703	B1	20010126		
	AT 205111	E	20010915	AT 1999-402855	19991117

ES 2163926	T3	20020201	ES 1999-402855	19991117
BR 9906206	A	20010206	BR 1999-6206	19991210
KR 2000052471	A	20000825	KR 1999-57463	19991214
JP 2000191503	A2	20000711	JP 1999-371720	19991227
CN 1266679	A	20000920	CN 1999-127471	19991228
US 6375960	B1	20020423	US 1999-474074	19991229
PRAI FR 1998-16570	A	19981229		
OS	MARPAT 133:63637			
AB	<p>A nanoemulsion having oil globules with av. size &lt;100 nm contains (1) a surfactant, which is solid at .ltoreq.45.degree.C, chosen from ethoxylated fatty ethers or esters, and (2) an oil having mol. wt. &gt;400, where the wt. ratio of oil phase to surfactant is 2-10:1. The surfactant can be an ethoxylated ether of behenic alc. (5-30 ethoxy units) or stearyl alc. (2 ethoxy units), an ethoxylated ester of stearic acid (40 ethoxy units) or behenic acid (8 ethoxy units), or their mixts. The nanoemulsion is transparent and stable with turbidity 60-600 NTU. It can be used in cosmetics and topical pharmaceuticals or ophthalmol. formulations. The nanoemulsion can be used for moisturizing dry skin and mucous membranes, treatment of <b>hair</b>, and as collyrium (eye lotion) for treatment of the eyes. In an example, a make-up removing liq. contained Brij 72 4.5, disodium N-stearoyl L-glutamic acid (Acylglutamate HS21) 0.5, isocetyl stearate 10, iso-Pr myristate 5, glycerin 5, dipropylene glycol 10 and water 65%. The transparent gel had globule size of 47 nm and turbidity of 222 NTU.</p>			
ST	cosmetic nanoemulsion ethoxylated fatty ether ester; dermatol nanoemulsion ethoxylated fatty ether ester; ophthalmol nanoemulsion ethoxylated fatty ether ester; fatty ether ester ethoxylated surfactant nanoemulsion			
IT	<p>Sulfonates</p> <p>RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)</p> <p>(alkanesulfonates; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)</p>			
IT	<p>Lipids, biological studies</p> <p>RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)</p> <p>(amphiphilic, anionic, cationic, sulfonated; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)</p>			
IT	<p>Fats and Glyceridic oils, biological studies</p> <p>RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)</p> <p>(avocado; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)</p>			
IT	<p>Skin, disease</p> <p>(dry; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)</p>			
IT	<p>Cosmetics</p> <p>Drug delivery systems</p> <p>(emulsions, nanoemulsions; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)</p>			
IT	<p>Fatty acids, biological studies</p> <p>RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)</p> <p>(ethoxylated, C16-22; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)</p>			
IT	<p>Alcohols, biological studies</p> <p>RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)</p> <p>(fatty, ethoxylated, C16-22; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol.</p>			

- and/or ophthalmol.)
- IT Amines, biological studies  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(fatty, salts; nanoemulsion based on ethoxylated fatty ethers or esters  
and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT Amino acids, biological studies  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(lipo, salts; nanoemulsion based on ethoxylated fatty ethers or esters  
and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT Cosmetics  
(makeups; nanoemulsion based on ethoxylated fatty ethers or esters and  
uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT **Hair preparations**  
Perfumes  
(nanoemulsion based on ethoxylated fatty ethers or esters and uses  
thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT Alcohols, biological studies  
Carbohydrates, biological studies  
Fats and Glyceridic oils, biological studies  
Glycols, biological studies  
Hydrocarbon oils  
Phospholipids, biological studies  
Polysiloxanes, biological studies  
Quaternary ammonium compounds, biological studies  
Soybean oil  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(nanoemulsion based on ethoxylated fatty ethers or esters and uses  
thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT Emulsions  
(nanoemulsions; nanoemulsion based on ethoxylated fatty ethers or  
esters and uses thereof in fields of cosmetics, dermatol. and/or  
ophthalmol.)
- IT Drug delivery systems  
(ophthalmic; nanoemulsion based on ethoxylated fatty ethers or esters  
and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT **Phosphatidic acids**  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(sodium salts; nanoemulsion based on ethoxylated fatty ethers or esters  
and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT Cosmetics  
(solns.; nanoemulsion based on ethoxylated fatty ethers or esters and  
uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT Drug delivery systems  
(topical; nanoemulsion based on ethoxylated fatty ethers or esters and  
uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT Fats and Glyceridic oils, biological studies  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(vegetable; nanoemulsion based on ethoxylated fatty ethers or esters  
and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT 9005-00-9, Polyethylene glycol, monostearyl ether  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(Brij 72; nanoemulsion based on ethoxylated fatty ethers or esters and  
uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT 53058-35-8, Polyethylene glycol, monobehenate  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(Compritol HD5 ATO; nanoemulsion based on ethoxylated fatty ethers or

esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)

- IT 26636-40-8, Polyethylene glycol, monobehenyl ether  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Nikkol BB10; nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)
- IT 56-81-5, Glycerin, biological studies **58-95-7**, Vitamin E acetate  
 64-17-5, Ethanol, biological studies 110-27-0, Isopropyl myristate  
 1256-86-6D, Cholesterol sulfate, alkali metal salts 2197-63-9D, Dicetyl phosphate, alkali metal salts 4358-16-1D, Cholesterol phosphate, alkali metal salts 6640-03-5D, Dimyristyl phosphate, alkali metal salts 9004-99-3, Polyethylene glycol, monostearate 17301-53-0, Behenyltrimethylammonium chloride 25265-71-8, Dipropylene glycol 25339-09-7, Isocetyl stearate 38079-62-8, Acylglutamate HS21  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

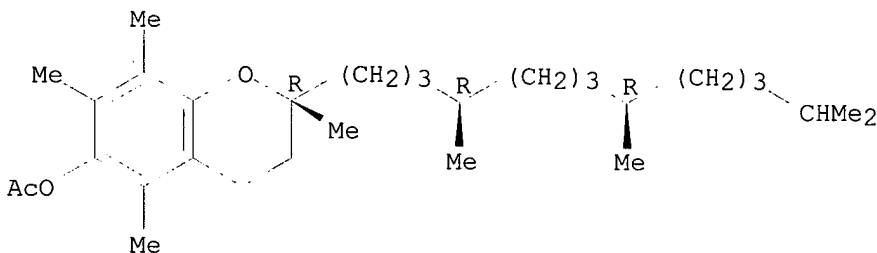
- (1) L'Oreal; EP 0842652 A 1998 HCAPLUS  
 (2) Vesifact Ag; EP 0852941 A 1998 HCAPLUS

- IT **58-95-7**, Vitamin E acetate  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nanoemulsion based on ethoxylated fatty ethers or esters and uses thereof in fields of cosmetics, dermatol. and/or ophthalmol.)

RN 58-95-7 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L79 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:440119 HCAPLUS

DN 127:55642

TI Skin and **hair** cosmetic compositions comprising an aqueous dispersion of lipid vesicles encapsulating an acid-functional UV-filters

IN Simonnet, Jean-Thierry; Legret, Sylvie; Ribier, Alain

PA L'Oreal S. A., Fr.

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA French

IC ICM A61K007-42

ICS A61K007-00; A61K009-127

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI EP 775479 A1 19970528 EP 1996-402196 19961015  
 EP 775479 B1 19981028  
 R: DE, ES, FR, GB, IT  
 FR 2741263 A1 19970523 FR 1995-13876 19951122  
 FR 2741263 B1 19971226  
 ES 2126371 T3 19990316 ES 1996-402196 19961015  
 US 5759526 A 19980602 US 1996-755314 19961122  
 PRAI FR 1995-13876 19951122  
 OS MARPAT 127:55642  
 AB Skin and **hair** cosmetic compns. comprising an aq. dispersion of lipid vesicles encapsulating an acid-functional UV-filters are claimed. The lipid vesicles are formed from an amphiphilic non-ionic lipid, an amphiphilic ionic lipid, a satd. hydrocarbon having iodine index .ltoreq.10, and a totally neutralize amphiphilic ionic lipid. A cream contained Tween 61 3.8, N,N-dimethyl-N-(hydroxy-2-ethyl)ammonium dodecanoyl-5-salicylate 3.8, cholesterol 3.8, benzene-1,4-di(3-methylidenecampho-10-sulfonic) 5.00, triethanolamine 1.0, **tocopherol** acetate 0.5, glycerin 5.0, and water q.s. 50%.  
 ST skin **hair** cosmetic lipid vesicle dispersion; sunscreen cream  
 Tween 61 ammoniumdodecanoyl salicylate  
 IT **Phosphatidic acids**  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (alkali metal salts; skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT Fatty acids, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (esters; skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT Fatty acids, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (ethoxylated; skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT Cosmetics  
 (eye shadows; skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT Glycols, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (long chain; skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT Cosmetics  
 (makeups; skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT **Hair preparations**  
 Sunscreens  
 (skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT Lipids, biological studies  
 Phospholipids, biological studies  
 Sterols  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (skin and **hair** cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)  
 IT 57-10-3D, Hexadecanoic acid, ethers and esters, biological studies  
 57-11-4D, Octadecanoic acid, ethers and esters, biological studies  
 112-85-6D, Docosanoic acid, ethers and esters 143-07-7D, Lauric acid, ethers and esters 544-63-8D, Myristic acid, ethers and esters  
 1256-86-6D, Cholesterol sulfate, alkali metal salts 2197-63-9D, Dicetyl

phosphate, alkali metal salts 4358-16-1D, Cholesterol phosphate, alkali metal salts 5391-18-4D, Butylglucoside, fatty acid esters 6640-03-5D, Dimyristyl phosphate, alkali metal salts 9004-99-3, Polyethylene glycol stearate 9005-67-8, Tween 61 38079-62-8, Disodium N-stearoyl glutamate 63119-59-5, Emalex psga 154602-31-0 191226-60-5

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(skin and hair cosmetic compns. comprising aq. dispersion of lipid vesicles encapsulating acid-functional UV-filters)

L79 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 1996:494170 HCAPLUS

DN 125:132809

TI Bioactive agent-containing biocomplex for correcting biological information transfer using three biological information blocks

IN Danielov, Michael M.

PA Dns Scientific, Inc., USA

SO PCT Int. Appl., 149 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K038-21

ICS A61K039-395; A61K031-55; A61K031-44; A61K031-24

CC 1-12 (Pharmacology)

Section cross-reference(s): 2, 62, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9617621	A1	19960613	WO 1995-US15919	19951206
	W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	US 5885974	A	19990323	US 1994-350234	19941206
	AU 9645108	A1	19960626	AU 1996-45108	19951206
	US 6303588	B1	20011016	US 1999-228384	19990112
PRAI	US 1994-350234	A	19941206		
	WO 1995-US15919	W	19951206		

AB Methods are disclosed for correcting biol. information transfer in a patient in need of such therapy which comprise administration of a compn. comprising a therapeutically effective amt. of a biocomplex comprising .gtoreq.1 bioactive agent from each of the 3 informational blocks of biol. information transfer, each agent present in an amt. sufficient to correct the biol. information transfer of the patient under treatment and resulting in the resumption of normal cell metab., and the amt. being less than the buffering amt. of said agent; together with a carrier therefor.

ST biol information transfer block therapeutic; cell metab information transfer biocomplex therapeutic

IT Acne

Alopecia

Animal cell

Antioxidants

Circulation

Cosmetics

Eczema

Metabolism

Pharmaceutical dosage forms

Pharmaceuticals

Pruritus

Psoriasis



Seborrhea

Signal transduction, biological

Skin, disease

Therapeutics

(bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT Albumins, biological studies

Calmodulins

Carbohydrates and Sugars, biological studies

Catecholamines

Cerebrosides

Coenzymes

Collagens, biological studies

Elastins

Gelatins, biological studies

Glycolipids

Lipids, biological studies

Orosomucoids

Peptides, biological studies

**Phosphatidic acids**

Phosphatidylcholines, biological studies

Phosphatidylethanolamines

Phosphatidylinositols

Phosphatidylserines

Phosphoinositides

Phospholipids, biological studies

Prostaglandins

Protamines

Proteins, biological studies

Sphingolipids

Steroids, biological studies

Sulfatides

Vitamins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT Animal growth regulator receptors

Estrogen receptors

Prostaglandin receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT Brain

(ext.; bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT Shock

(post-trauma; bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT Cell membrane

(substitute cell membrane delivery system; bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT Prostaglandins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(A, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT Prostaglandins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

- (D, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Prostaglandins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(E, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Receptors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(animal growth regulator, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Skin  
(cellulite, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Glycerides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(di-, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Phosphoinositides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(di-, 4-phosphates, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Skin, disease  
(dry, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Receptors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(estrogen, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Corticosteroid receptors  
Receptors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(glucocorticosteroid, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Lipoproteins  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(high-d., bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Phosphatidylcholines, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hydrogenated, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Elastins  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hydrolyzates, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Lipoproteins  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)  
(low-d., bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Corticosteroid receptors  
Receptors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(mineralocorticosteroid, bioactive agent-contg. biocomplex for  
correcting biol. information transfer and cell metab., and therapeutic  
use)

IT Dermatitis  
(neuro-, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Skin, disease  
(oily, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Pharmaceutical dosage forms  
(ointments, creams, bioactive agent-contg. biocomplex for correcting  
biol. information transfer and cell metab., and therapeutic use)

IT Pharmaceutical dosage forms  
(ophthalmic, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Pharmaceutical dosage forms  
(parenterals, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Receptors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(prostaglandin, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Sunburn and Suntan  
(suntanning agents, bioactive agent-contg. biocomplex for correcting  
biol. information transfer and cell metab., and therapeutic use)

IT Pharmaceutical dosage forms  
(topical, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Injury  
(trauma, shock following; bioactive agent-contg. biocomplex for  
correcting biol. information transfer and cell metab., and therapeutic  
use)

IT Phosphoinositides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic  
use); BIOL (Biological study); USES (Uses)  
(tri-, 4,5-bis(phosphates), bioactive agent-contg. biocomplex for  
correcting biol. information transfer and cell metab., and therapeutic  
use)

IT Collagens, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic  
use); BIOL (Biological study); USES (Uses)  
(type I, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Collagens, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic  
use); BIOL (Biological study); USES (Uses)  
(type II, bioactive agent-contg. biocomplex for correcting biol.  
information transfer and cell metab., and therapeutic use)

IT Collagens, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic  
use); BIOL (Biological study); USES (Uses)

- (type III, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Lipoproteins  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(very-low-d., bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Skin, disease  
(wrinkle, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Receptors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(.alpha.2-adrenergic, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT Receptors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(.beta.2-adrenergic, bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT 60-92-4, Cyclic AMP  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)
- IT 50-14-6, Ergocalciferol 50-23-7, Hydrocortisone 50-28-2, .beta.-Estradiol, biological studies 50-81-7, L-Ascorbic acid, biological studies 51-61-6, Dopamine, biological studies 52-39-1, Aldosterone 52-89-1, L-Cysteine hydrochloride 53-59-8, .beta.-NADP 53-84-9, .beta.-NAD 54-47-7, Pyridoxal-5-phosphate 55-31-2, Epinephrine hydrochloride 56-65-5, Adenosine triphosphate, biological studies 56-81-5D, 1,2,3-Propanetriol, 1,2-diacyl derivs. 56-89-3, L-Cystine, biological studies 57-11-4, Octadecanoic acid, biological studies 57-83-0, Progesterone, biological studies 57-87-4, Ergosterol 57-88-5, Cholesterol, biological studies 58-56-0, Pyridoxine hydrochloride 58-85-5, Biotin 58-95-7, .alpha.-Tocopherol acetate 59-30-3, Folic acid, biological studies 60-18-4, L-Tyrosine, biological studies 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies 63-91-2, L-Phenylalanine, biological studies 65-71-4, Thymine 66-22-8, Uracil, biological studies 67-03-8, Thiamine hydrochloride 71-30-7, Cytosine 73-22-3, L-Tryptophan, biological studies 73-24-5, Adenine, biological studies 73-40-5, Guanine 79-81-2, Retinol palmitate 85-61-0, Coenzyme A, biological studies 86-01-1, Guanosine triphosphate 96-26-4, Dihydroxyacetone 98-92-0, Nicotinamide 112-85-6, Behenic acid 113-79-1, Arginine vasopressin 117-39-5, Quercetin 122-32-7, Triolein 123-33-1, Maleic hydrazide 135-16-0, Tetrahydrofolic acid 137-08-6, Pantothenic acid hemicalcium salt 145-42-6, Sodium taurocholate 154-87-0, Cocarboxylase 329-56-6, Arterenol hydrochloride 361-09-1, Sodium cholate 363-24-6, Prostaglandin E2 463-40-1, Linolenic acid 481-39-0, Juglone 506-21-8, Linolelaidic acid 506-30-9, Arachidic acid 537-40-6, Trilinolein 551-11-1, Prostaglandin F2.alpha. 555-43-1, Tristearin 606-68-8 620-64-4, Triarachidin 745-65-3, Prostaglandin E1 863-57-0, Sodium glycocholate 987-65-5, Adenosine triphosphate disodium salt 1105-02-8, Corticosterone-21-sulfate 1184-16-3 1340-08-5, Vitamin P 1407-47-2, Angiotensin 1731-94-8, Nonadecanoic acid methyl ester 2566-90-7 2644-64-6, Dipalmitoylphosphatidylcholine 2752-99-0, Trierucin 3026-45-7, Dipalmitoylphosphatidylethanolamine 4537-76-2, Distearoylphosphatidylethanolamine 4537-77-3, Dipalmitoylphosphatidylglycerol 4537-78-4, Distearoylphosphatidylglycerol 4539-70-2, Distearoylphosphatidylcholine 4999-79-5,

Estradiol-3-sulfate sodium salt 6064-90-0, Heneicosanoic acid methyl ester 6610-25-9, Arachidonic acid sodium salt 7235-40-7, .beta.-Carotene 7665-99-8, Cyclic GMP 9001-62-1, Lipase 9002-60-2, Adrenocorticotrophic hormone, biological studies 9002-60-2D, Adrenocorticotrophic hormone, 1-24 fragment 9002-64-6, Parathyroid hormone 9002-64-6D, Parathyroid hormone, 1-36 fragment 9002-67-9, Luteinizing hormone 9002-68-0, Follicle-stimulating hormone 9002-71-5, Thyrotropic hormone 9002-72-6, Somatotropin 9004-10-8, Insulin, biological studies 9004-61-9, Hyaluronic acid 9005-49-6, Heparin sulfate, biological studies 9007-12-9, Thyrocalcitonin 9007-92-5, Glucagon, biological studies 9015-73-0 9026-43-1, Protein kinase 9041-08-1, Heparin sodium salt 10417-94-4 10529-43-8, Cholecalciferol sulfate 11000-17-2, Vasopressin 11061-68-0, Human insulin 11128-99-7, Angiotensin II 12629-01-5, Human growth hormone 13487-42-8 13699-48-4, Dimyristoylphosphatidylcholine 14465-68-0 15866-84-9, Adenosine triphosphate calcium salt 18641-57-1, Trihehenin 20255-95-2, Dimyristoylphosphatidylethanolamine 20290-75-9 22251-85-0, Flavin mononucleotide sodium salt 24967-93-9, Chondroitin sulfate A 24967-94-0, Dermatan sulfate 25322-46-7, Chondroitin sulfate C 26536-13-0, Trinonadecanoin 27964-99-4, Poly-D-lysine hydrobromide 28845-86-5, 13,16,19-Docosatrienoic acid, (Z,Z,Z)- 28874-58-0 35121-78-9, Prostaglandin I2 37221-79-7, Vasoactive intestinal peptide 37377-93-8, .beta.-Lipotropin 37377-93-8D, .beta.-Lipotropin, fragment 37839-81-9, Cyclic AMP sodium salt 40245-60-1, Cyclic GMP sodium salt 41598-07-6, Prostaglandin D2 52910-82-4, Aldosterone-21-hemisuccinate 55672-92-9, Coenzyme A sodium salt 59392-49-3, Gastric inhibitory peptide 60617-12-1, .beta.-Endorphin 60617-12-1D, .beta.-Endorphin, fragment 61361-72-6, Dimyristoylphosphatidylglycerol 61849-14-7, Prostaglandin I2 sodium salt 78392-27-5, Cholecalciferol sulfate sodium salt 80380-39-8, Tri-11-eicosenoin 85166-31-0, D-myo-Inositol-1,4,5-triphosphate 92216-45-0, D-myo-Inositol-2,4,5-triphosphate 96012-99-6, Guanosine triphosphate lithium salt 99660-95-4 100775-23-3, Corticosterone-21-sulfate potassium salt 108340-81-4, D-myo-Inositol, 1,4,5-tris(dihydrogen phosphate), hexasodium salt 135271-36-2, D-myo-Inositol-1,4,5-triphosphate potassium salt

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT 7440-70-2, Calcium, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(intracellular, mobilization; bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

IT 58-95-7, .alpha.-Tocopherol acetate

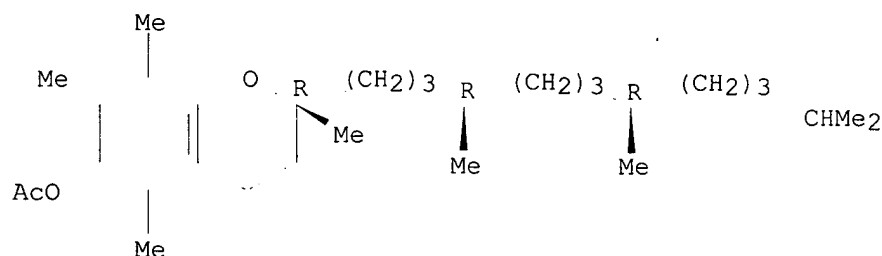
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bioactive agent-contg. biocomplex for correcting biol. information transfer and cell metab., and therapeutic use)

RN 58-95-7 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, acetate, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L79 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 1994:442764 HCAPLUS

DN 121:42764

TI Lyotropic mesophases for use in pharmacy, cosmetics, and dermatology

IN Reszka, Regina Dr; Golz, Karin; Richter, Jana; Pose, Sabine; Bertag, Christa

PA Max-Delbrueck-Centrum fuer Molekulare Medizin Berlin-Buch, Germany

SO Ger. Offen., 7 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K037-02

ICS A61K031-575; A61K031-685; A61K007-48; A61K007-50; A61K007-42

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 62

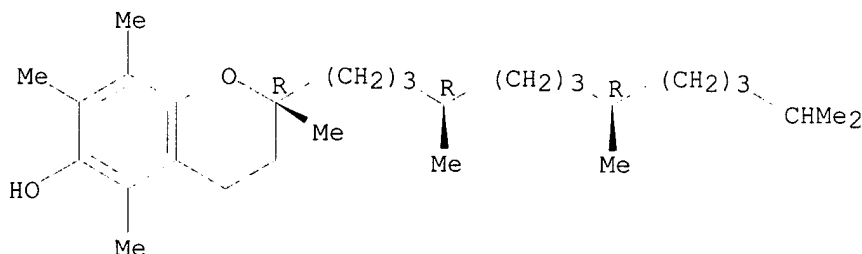
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4238779	A1	19940519	DE 1992-4238779	19921112
PRAI	DE 1992-4238779		19921112		
AB	Dermatol. and cosmetic preps. in vesicular or liposomal form contain water- or lipid-sol. plant constituents and/or biol. active proteins in lyotropic mesophases such as micelles, microemulsions; or lamellar or hexagonal phases. Thus, cholesterol-lecithin liposomes were prepd. contg. yeast superoxide dismutase. Formulations for UV blockers, face masks, hair tonics, etc. using these liposomes are presented.				
ST	lyotropic mesophase cosmetic pharmaceutical; superoxide dismutase liposome cosmetic pharmaceutical				
IT	Proteins, biological studies				
	RL: BIOL (Biological study)				
	(cosmetic and pharmaceutical formulations contg., in lyotropic mesophases)				
IT	Carotenes and Carotenoids, biological studies				
	Vitamins				
	RL: BIOL (Biological study)				
	(lyotropic mesophases contg., for cosmetics and pharmaceuticals)				
IT	Fungicides and Fungistats				
	(plant exts. and proteins in lyotropic mesophases as)				
IT	Amphiphiles				
	Emulsifying agents				
	Surfactants				
	Lecithins				
	Lipids, biological studies				
	Phosphatidic acids				
	Phosphatidylserines				
	Phospholipids, biological studies				
	Sphingolipids				
	Steroids, biological studies				
	Sulfatides				
	RL: BIOL (Biological study)				

- (plant exts. and proteins in lyotropic mesophases contg., for cosmetics and pharmaceuticals)
- IT Cosmetics  
Detergents  
Sunscreens  
(plant exts. and proteins in lyotropic mesophases for)
- IT Pharmaceutical natural products  
RL: BIOL (Biological study)  
(plant-derived, cosmetic and pharmaceutical formulations contg., in lyotropic mesophases)
- IT Radicals, biological studies  
RL: BIOL (Biological study)  
(scavengers for, plant exts. and proteins in lyotropic mesophases as)
- IT Pregnancy  
(skin stretch marks in, prevention of, plant exts. and proteins in lyotropic mesophases for)
- IT Skin, disease  
(stretch marks in, in pregnancy, prevention of, plant exts. and proteins in lyotropic mesophases for)
- IT Shaving preparations  
(aftershave, defatting, plant exts. and proteins in lyotropic mesophases for)
- IT **Hair preparations**  
(conditioners, plant exts. and proteins in lyotropic mesophases as)
- IT Liquid crystals  
(hexagonal, cosmetic and pharmaceutical formulations contg. plant exts. and proteins in)
- IT Liquid crystals  
(lamellar, cosmetic and pharmaceutical formulations contg. plant exts. and proteins in)
- IT Pharmaceutical dosage forms  
(liposomes, plant exts. and proteins in)
- IT Liquid crystals  
(lyotropic, cosmetic and pharmaceutical formulations contg. plant exts. and proteins in)
- IT Neoplasm inhibitors  
(melanoma, plant exts. and proteins in lyotropic mesophases as)
- IT Cosmetics  
Pharmaceutical dosage forms  
(microemulsions, plant exts. and proteins in)
- IT Liquid crystals  
(nematic, micellar, cosmetic and pharmaceutical formulations contg. plant exts. and proteins in)
- IT Bath preparations  
(oils, plant exts. and proteins in lyotropic mesophases for)
- IT Pharmaceutical dosage forms  
(topical, plant exts. and proteins in lyotropic mesophases for)
- IT 50-81-7, Vitamin C, biological studies **59-02-9**, .alpha.-**Tocopherol** 68-19-9, Vitamin B12 9054-89-1, Superoxide dismutase  
RL: BIOL (Biological study)  
(lyotropic mesophases contg., for cosmetics and pharmaceuticals)
- IT 57-10-3, Palmitic acid, biological studies 57-11-4, Octadecanoic acid, biological studies 57-88-5, Cholesterol, biological studies 124-30-1, Stearylamine 2197-63-9, Dicapryl phosphate 156121-29-8D, esters 156121-29-8D, ethers 156121-30-1  
RL: BIOL (Biological study)  
(plant exts. and proteins in lyotropic mesophases contg., for cosmetics and pharmaceuticals)
- IT **59-02-9**, .alpha.-**Tocopherol**  
RL: BIOL (Biological study)  
(lyotropic mesophases contg., for cosmetics and pharmaceuticals)
- RN 59-02-9 HCAPLUS

CN 2H-1-Benzopyran-6-ol, 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L79 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2003 ACS

AN 1989:601379 HCAPLUS

DN 111:201379

TI **Hair** preparations containing vasodilating agents and derivatives of fatty acids or alcohols

IN Sugiyama, Keikichi; Takada, Koji; Fukushima, Akira

PA Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63310813	A2	19881219	JP 1987-146497	19870612
PRAI	JP 1987-146497		19870612		

OS MARPAT 111:201379

AB A **hair** prepn. to promote melanin formation for gray **hairs** comprises (1) .gtoreq.1 compds. selected from xanthine, papaverine, papaveraldine, 4-(3-butoxy-4-methoxybenzyl)-2-imidazolidinone, and their derivs. and (2) .gtoreq.1 compds. selected from fatty acids and alcs. having odd-numbered C and their derivs. A **hair** tonic contained ethanol 80.0, olive oil 1.0, .alpha.-**tocopherol** 0.5, theophylline 0.3, pentadecanoic acid monoglyceride 2.0, a coloring agent q.s., a perfume q.s., and distd. water 16.2%. The **hair** tonic was applied to 20 volunteers with gray **hair** for 3 mo and satisfactory results were reported.

ST **hair** tonic theophylline glyceride; xanthine fatty acid lac **hair** prepn; papaverine fatty acid **hair** prepn; papaveraldine fatty acid **hair** prepn

IT Amides, biological studies  
Esters, biological studies  
Glycerides, biological studies  
Phospholipids, biological studies  
Sphingolipids

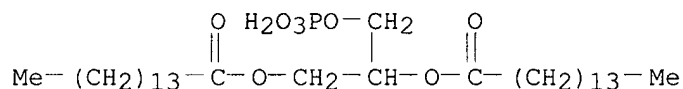
RL: BIOL (Biological study)  
(**hair** prepns. contg., for gray **hair**)

IT **Hair preparations**  
(xanthines and fatty acids and alcs. in, for gray **hair**, melanin formation in relation to)

IT Carboxylic acids, biological studies  
Glycerides, biological studies  
RL: BIOL (Biological study)  
(di-, **hair** prepns. contg., for gray **hair**)



- IT **Phosphatidic acids**  
RL: BIOL (Biological study)  
(esters, **hair** prepns. contg., for gray **hair**)
- IT Glycerides, biological studies  
RL: BIOL (Biological study)  
(mono-, **hair** prepns. contg., for gray **hair**)
- IT Amides, biological studies  
RL: BIOL (Biological study)  
(secondary, **hair** prepns. contg., for gray **hair**)
- IT Amides, biological studies  
RL: BIOL (Biological study)  
(tertiary, **hair** prepns. contg., for gray **hair**)
- IT **Hair preparations**  
(tonics, xanthines and fatty acids and alcs. in, for gray **hair**  
, melanin formation in relation to)
- IT 57-11-4, Octadecanoic acid, biological studies 58-08-2, Caffeine,  
biological studies 58-55-9, Theophylline, biological studies 58-74-2,  
Papaverine 61-25-6 83-67-0, Theobromine 112-05-0, Nonanoic acid  
522-57-6, Papaveraldine 1182-66-7, Cholesterol nonanoate 1454-85-9,  
Heptadecyl alcohol 1460-18-0, 1,13-Tridecamethylene dicarboxylic acid  
1731-81-3, Undecyl acetate 1731-92-6, Methyl heptadecanoate 4268-61-5,  
Sodium nonadecanoate 9004-96-0 24675-16-9 28822-58-4,  
3-Isobutyl-1-methylxanthine 29925-17-5 34778-57-9, Tridecanoic acid  
amide 36653-82-4, Cetanol 68738-87-4 95678-14-1 **98361-88-7**  
104140-07-0, Pentadecanoic acid monoglyceride 121957-71-9, Tridecanoic  
acid diglyceride 123416-52-4 123499-79-6, N-Acetylundecanoic acid  
amide 123519-84-6, N,N-Diacetylnonanoic acid amide  
RL: BIOL (Biological study)  
(**hair** prepns. contg., for gray **hair**)
- IT **98361-88-7**  
RL: BIOL (Biological study)  
(**hair** prepns. contg., for gray **hair**)
- RN 98361-88-7 HCAPLUS
- CN Pentadecanoic acid, 1-[(phosphonoxy)methyl]-1,2-ethanediyl ester (9CI)  
(CA INDEX NAME)



L79 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2003 ACS  
AN 1989:520600 HCAPLUS  
DN 111:120600  
TI Antimicrobial emulsions containing phosphatides  
IN Fujita, Satoru  
PA Asahi Denka **Kogyo** K. K., Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM A01N057-12  
ICS A23L003-34; A61K007-00  
CC 62-1 (Essential Oils and Cosmetics)  
Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63091306	A2	19880422	JP 1986-237791	19861006
	JP 07074132	B4	19950809		
PRAI	JP 1986-237791		19861006		

AB Antimicrobial compns. having surface active properties contain salts 6-25 and lysophosphatides 0.01-30.0% by wt. in water. The salts are alkali metals, alk. earth metals and ammonium base of inorg. salts. The lysophosphatides include lysophosphatidylcholines as the major components, lysophosphatidylethanolamines, and at least one compd. selected from lysophosphatidylinositols, **lysophosphatidic acids**, and lysophosphatidylserines. The antimicrobial compn. is stable in storage, and useful in toiletry products, cosmetics, and foods. A com. soybean phospholipids were defatted with Me<sub>2</sub>CO, and phosphatides contg. 70% phosphatidylcholines were isolated from the phospholipids. The phosphatides were treated with phospholipase A-2, treated with Me<sub>2</sub>CO to eliminate fatty acids, and finally, treated with an aq. EtOH, and subjected to silica gel chromatog. to give a phosphatide fraction contg. lysophosphatidylcholine 87, lysophosphatidylethanolamines 6, and diacylphosphatidylcholines 3%. An emulsion made with this phosphatide was stable and showed antimicrobial activities.

ST phosphatide surfactant antimicrobial cosmetic; food antimicrobial phosphatide surfactant

IT **Shampoos**  
(antimicrobial compn. contg. phosphatides and salts for)

IT Phospholipids, biological studies  
RL: BIOL (Biological study)  
(antimicrobial compn. manuf. from)

IT Cosmetics  
Food  
(surface-active antimicrobial compns. contg. phosphatides and salts for)

IT Lysophosphatides  
**Lysophosphatidic acids**  
Lysophosphatidylcholines  
Lysophosphatidylethanolamines  
Lysophosphatidylinositols  
Lysophosphatidylserines  
RL: BIOL (Biological study)  
(surface-active antimicrobial compns. contg. salts and)

IT 7647-14-5, Sodium chloride, biological studies 7757-82-6, Sodium sulfate, biological studies 7783-20-2, Ammonium sulfate, biological studies 10043-52-4, Calcium chloride, biological studies  
RL: BIOL (Biological study)  
(antimicrobial compn. contg. phosphatides and)

L79 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2003 ACS  
AN 1984:39451 HCAPLUS  
DN 100:39451  
TI Stabilization of agent for controlling **hair loss** and for stimulating **hair growth**  
IN Kastell, Wolfgang  
PA Fed. Rep. Ger.  
SO Ger. Offen., 6 pp. Addn. to Ger. Offen. 3,109,420.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC A61K007-06  
CC 62-3 (Essential Oils and Cosmetics)  
Section cross-reference(s): 63

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 3222016	A1	19831215	DE 1982-3222016	19820611
	DE 3109420	A1	19820923	DE 1981-3109420	19810312
	JP 57165309	A2	19821012	JP 1982-36689	19820310
	JP 01028726	B4	19890605		
	BR 8201314	A	19830125	BR 1982-1314	19820311

ES 510326	A1	19830201	ES 1982-510326	19820311
US 4515778	A	19850507	US 1983-489066	19830427

PRAI DE 1981-3109420 19810312  
US 1982-339419 19820115

AB **Hair** tonics contg. lecithins from plants and beef heart ext. contg. cytochromes, phosphatidylinositols, phosphatides, and **phosphatidic acids** (CA 99: 10695p) are stabilized by the addn. of **tocopherol** as an antioxidant and pH 7.2 0.02M phosphate buffer contg. 0.1% NaN3. The phosphate buffer contg. NaN3 was used to ext. the ground beef heart, and the cytochrome-contg. filtrate or supernatant was refrigerated. The residue was stirred with iso-PrOH contg. **tocopherol**, filtered, the filtrate evapd. and resuspended in aq. EtOH. The filtrate and suspension were mixed with an aq. lecithin suspension and dild. with H2O and EtOH.

ST cytochrome lecithin **hair** tonic; **tocopherol** antioxidant **hair** tonic; **alopecia** lecithin cytochrome; azide heart cytochrome ext; phospholipid heart extn **tocopherol**

IT **Tocopherols**  
RL: BIOL (Biological study)  
(antioxidants, for **hair** tonics contg. beef heart cytochromes and phospholipids and plant lecithins)

IT Heart, composition  
(cytochromes and phospholipids of bovine, sodium azide and **tocopherol** stabilizers for, for **hair** tonics)

IT Phospholipids  
RL: BIOL (Biological study)  
(of beef heart, **tocopherol**-contg. iso-Pr alc. extn. of, for **hair** tonic)

IT Cytochromes  
RL: BIOL (Biological study)  
(of heart, sodium azide-contg. phosphate buffer extn. of, for **hair** tonic)

IT **Alopecia**  
(treatment of, with stabilized tonics contg. cytochromes and phospholipids and lecithins)

IT **Hair preparations**  
(**growth** stimulants, cytochromes and phospholipids and lecithins for, sodium azide and **tocopherol** stabilization of)

IT **Hair preparations**  
(tonics, cytochromes and phospholipids and lecithins for, sodium azide and **tocopherol** stabilization of)

IT 26628-22-8  
RL: BIOL (Biological study)  
(stabilizer, for beef heart phosphate buffer extn., for **hair** tonics)

=> d all tot

L83 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2003 ACS  
AN 2001:235518 HCAPLUS  
DN 134:256599  
TI **Hair** tonics containing **hair** growth stimulants and plant extracts  
IN Nishizawa, Hiroaki; Kono, Tomoko  
PA Lion Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM A61K007-06  
ICS A61P017-14  
CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001089331	A2	20010403	JP 1999-264236	19990917
PRAI	JP 1999-264236		19990917		

AB **Hair tonics** contg. **hair growth** stimulants and Rehmannia ext., Zizyphus ext., Ganoderma ext., Luffa ext., Poria ext., and/or Crataegus ext. The plant exts. activate **hair papilla**, thus the **hair tonics** show synergistic **hair growth**-stimulating effect. Thus, a EtOH soln. contg. 2.5% pentadecanoic acid monoglyceride and 2.0% G. lucidum enhanced **hair growth** in mice.

ST **hair tonic** glycerin pentadecanoate Ganoderma ext; Rehmannia Zizyphus Luffa ext **hair tonic**; Poria Crataegus ext **hair tonic**

IT **Hair preparations**  
(**growth** stimulants; **hair tonics** contg. **hair growth** stimulants and plant exts.)

IT Ganoderma  
Ganoderma lucidum  
Hawthorn (Crataegus)  
Hawthorn (Crataegus cuneata)  
Jujube (Zizyphus)  
Jujube (Zizyphus jujuba)  
Luffa  
Luffa cylindrica  
Poria  
Poria cocos  
Rehmannia  
Rehmannia glutinosa  
(**hair tonics** contg. **hair growth** stimulants and plant exts.)

IT 638-53-9D, Tridecanoic acid, glycerides 1460-18-0, 1,13-Tridecamethylenedicarboxylic acid 1721-51-3, .alpha.-Tocotrienol 3843-51-4, Pentadecanamide 4268-63-7, Sodium pentadecanoate 25605-88-3, Cholesteryl pentadecanoate 38304-91-5, Minoxidil 41114-00-5, Ethyl pentadecanoate 67896-63-3 **98361-88-7**, 1,2-Dipentadecanoylglycero-3-phosphoric acid 104140-07-0, Pentadecanoic acid monoglyceride 121957-70-8 123416-52-4 131630-08-5 331427-59-9 331427-61-3 331427-64-6  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(**hair tonics** contg. **hair growth** stimulants and plant exts.)

IT 56-81-5D, Glycerin, tridecanoic acid esters  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(**hair tonics** contg. **hair growth** stimulants and plant exts.)

L83 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2003 ACS  
AN **1997:480483** HCAPLUS  
DN **127:99532**  
TI **Hair growth** stimulants containing fatty acids or alcohols with odd carbon-chain length and forskolin  
IN Nishizawa, Hiroaki; Yokoyama, Daizaburo  
PA Lion Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM A61K007-06

ICS A61K031-23; A61K031-35; A61K035-78; C07D311-92  
CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09157138	A2	19970617	JP 1995-318732	19951207
PRAI	JP 1995-318732		19951207		

AB **Hair growth** stimulants contain (A) .gtoreq.1 selected from fatty acids or alcs. with odd C-chain length and their derivs. (e.g. glycerides, esters, amides, sterol esters, **phosphatidic acids**, phospholipids, sphingolipids, etc.) and (B) forskolin, its derivs., or root exts. of *Coleus forskohlii*. A **hair** lotion contg. pentadecanoic acid monoglyceride and 14,15-dihydroforskolin was prepd.

ST forskolin **hair growth** stimulant; *Coleus* root ext **hair growth** stimulant; odd fatty acid **hair growth** stimulant; alc odd **hair growth** stimulant

IT Fatty acids, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(esters; **hair growth** stimulants contg. fatty acids or alcs. with odd carbon-chain length and forskolin)

IT Sterols  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(fatty acid esters; **hair growth** stimulants contg. fatty acids or alcs. with odd carbon-chain length and forskolin)

IT Amides, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(fatty; **hair growth** stimulants contg. fatty acids or alcs. with odd carbon-chain length and forskolin)

IT **Hair preparations**  
(**growth** stimulants; **hair growth** stimulants contg. fatty acids or alcs. with odd carbon-chain length and forskolin)

IT Alcohols, biological studies  
Ethers, biological studies  
Fatty acids, biological studies  
Glycerides, biological studies  
Phospholipids, biological studies  
Sphingolipids  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(**hair growth** stimulants contg. fatty acids or alcs. with odd carbon-chain length and forskolin)

IT *Coleus forskohlii*  
(root exts.; **hair growth** stimulants contg. fatty acids or alcs. with odd carbon-chain length and forskolin)

IT 64657-24-5, 14,15-Dihydroforskolin 66575-29-9, Forskolin 73304-52-6  
104140-07-0, Pentadecanoic acid monoglyceride  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(**hair growth** stimulants contg. fatty acids or alcs. with odd carbon-chain length and forskolin)

AN 1997:478713 HCAPLUS  
 DN 127:85816  
 TI **Hair growth** stimulants containing tocotrienol and forskolin  
 IN Nishizawa, Hiroaki; Yokoyama, Daizaburo  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-06  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09157136	A2	19970617	JP 1995-320217	19951208
PRAI	JP 1995-320217		19951208		

AB **Hair growth** stimulants contain (A) tocotrienol and (B) .gtoreq.1 forskolin, its derivs., or root exts. of *Coleus forskohlii*. The **hair growth** stimulants preferably contain (C) .gtoreq.1 selected from fatty acids or alcs. with odd no. of C chain length and their derivs. (e.g. glycerides, esters, amides, sterol esters, **phosphatidic acids**, phospholipids, sphingolipids, etc.). A **hair** lotion contg. pentadecanoic acid monoglyceride, 14,15-dihydroforskolin, and palm oil tocotrienol was prepd.

ST tocotrienol forskolin **hair growth** stimulant; *Coleus* root ext **hair growth** stimulant

IT Fatty acids, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (esters; **hair growth** stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no. C chain length)

IT Sterols  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (fatty acid esters; **hair growth** stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no. C chain length)

IT Amides, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (fatty; **hair growth** stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no. C chain length)

IT **Hair preparations**  
 (**growth** stimulants; **hair growth** stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no. C chain length)

IT Alcohols, biological studies  
 Ethers, biological studies  
 Fatty acids, biological studies  
 Glycerides, biological studies  
 Phospholipids, biological studies  
 Sphingolipids  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (**hair growth** stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no. C chain length)

IT *Coleus forskohlii*  
 (root exts.; **hair growth** stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no.

C chain length)  
 IT 490-23-3, .beta.-Tocotrienol 1721-51-3, .alpha.-Tocotrienol 6829-55-6, Tocotrienol 14101-61-2, .gamma.-Tocotrienol 25612-59-3, .delta.-Tocotrienol 64657-24-5, 14,15-Dihydroforskolin 66575-29-9, Forskolin  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (hair growth stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no. C chain length)  
 IT 73304-52-6 . 104140-07-0, Pentadecanoic acid monoglyceride  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (hair growth stimulants contg. tocotrienol, forskolin, and optional fatty acids or alcs. with odd no. C chain length)

L83 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:657979 HCAPLUS

DN 117:257979

TI Aqueous composition containing ethanol, phospholipids, and oils and/or fats for stimulation and regeneration of hair growth

PA Lang, Erich, Germany

SO Ger. Offen., 3 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4113346	A1	19921029	DE 1991-4113346	19910424
PRAI	DE 1991-4113346		19910424		

AB The title compn. preferably contains .apprx.20 vol.% EtOH, .apprx.2 wt.% soybean phospholipids, and .apprx.3 wt.% oil and/or fat along with vitamins and other components. Thus, a liposome microemulsion (particle size 150-200 nm) was prepd. contg. .apprx.20% EtOH, .apprx.2 wt.% soybean phospholipids (including .ltoreq.5% lysophosphatidylcholine and .ltoreq.1% misc. phospholipids), .ltoreq.3% oil (comprising palmitic and stearic acids 20, oleic acid 10, linoleic acid 62, and linolenic acid 8%), <2% of a mixt. of vitamin A palmitate, vitamin E acetate, D-panthenol, .alpha.-bisabolol, and Philocell (blood dialyzate), and water (remainder). Brittle hair was strengthened by 4 wk of daily application of this compn. The compn. was stable for .apprx.4 mo at 18.degree..

ST hair growth ethanol phospholipid oil; fat hair growth stimulation

IT Fats and Glyceridic oils  
 Fatty acids, biological studies  
 Lipids, biological studies  
 Lysophosphatidylcholines  
 Phosphatidic acids  
 Phosphatidylinositols  
 Phospholipids, biological studies  
 Steroids, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (hair growth stimulants contg.)

IT Soybean oil  
 RL: BIOL (Biological study)  
 (phospholipids of, hair growth stimulants contg.)

IT Hair preparations

(**growth** stimulants, ethanol and fats/oils and phospholipids in)

IT Phosphatidylethanolamines  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (N-acyl, **hair growth** stimulants contg.)  
 IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid,  
 biological studies 60-33-3, Linoleic acid, biological studies 64-17-5,  
 Ethanol, biological studies 112-80-1, Oleic acid, biological studies  
 463-40-1, Linolenic acid  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (**hair growth** stimulants contg.)

L83 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2003 ACS

AN 1989:520619 HCAPLUS

DN 111:120619

TI Aerosol-type **hair growth** stimulating tonics containing  
 fatty acids or their derivatives

IN Nishida, Yuichi

PA Lion Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01006208	A2	19890110	JP 1987-159790	19870629
PRAI	JP 1987-159790		19870629		

OS MARPAT 111:120619

AB Aerosol-type **hair** tonics, which stimulate **hair growth** and have improved stability at a lower temp., contain fatty acids with odd C length or their derivs., low-b.p. solvents, and liquefied gas. A **hair** spray consisted of propylene glycol pentadecanoate 0.5, 1-menthol 0.2, succinic acid 0.5, biotin 0.01, ethynylestradiol 0.001, benzyl nicotinate 0.001, and EtOH to 100.0% by wt.

ST fatty acid deriv aerosol **hair** tonic

IT Amides, compounds

Fatty acids, esters

Glycerides, biological studies

**Phosphatidic acids**

Phospholipids, biological studies

Sphingolipids

RL: BIOL (Biological study)

(**hair growth** stimulating tonics contg.,  
 aerosol-type)

IT Glycerides, biological studies

RL: BIOL (Biological study)

(di-, **hair growth** stimulating tonics contg.,  
 aerosol-type)

IT **Hair preparations**

(**growth** stimulants, tonics, sprays, fatty acid  
 derivs.-contg.)

IT Glycerides, biological studies

RL: BIOL (Biological study)

(mono-, **hair growth** stimulating tonics contg.,  
 aerosol-type)

IT 75-69-4, Trichloromonofluoromethane 75-71-8, Dichlorodifluoromethane  
 1320-37-2, Dichlorotetrafluoroethane 24365-37-5, Cholesteryl  
 heptadecanoate

RL: BIOL (Biological study)

(**hair growth** stimulating tonics contg. fatty acid



esters and, aerosol-type)  
 IT 1002-84-2, Pentadecanoic acid 11140-06-0 27593-69-7 39265-84-4,  
 Isopropyl heptadecanoate 86596-00-1 120602-64-4 122584-61-6  
 122607-90-3 122636-37-7 122636-38-8  
 RL: BIOL (Biological study)  
 (hair growth stimulating tonics contg.,  
 aerosol-type)

L83 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2003 ACS

AN 1983:410695 HCAPLUS

DN 99:10695

TI Lecithin and bovine heart extract compositions for arresting the  
 loss of hair and for promoting the growth of  
 hair

IN Kastell, Wolfgang

PA Fed. Rep. Ger.

SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DT Patent

LA German

IC A61K007-06; A61K035-36

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 60933	A2	19820929	EP 1981-109980	19811128
	EP 60933	A3	19830413		
	EP 60933	B1	19850320		
	R:	AT, BE, CH, DE, FR, GB, IT, LU, NL, SE			
	DE 3109420	A1	19820923	DE 1981-3109420	19810312
	AT 12176	E	19850415	AT 1981-109980	19811128
	JP 57165309	A2	19821012	JP 1982-36689	19820310
	JP 01028726	B4	19890605		
	BR 8201314	A	19830125	BR 1982-1314	19820311
	ES 510326	A1	19830201	ES 1982-510326	19820311
	US 4515778	A	19850507	US 1983-489066	19830427
PRAI	DE 1981-3109420		19810312		
	EP 1981-109980		19811128		
	US 1982-339419		19820115		

AB Hair tonics are prep'd. contg. lecithins obtained from plants and  
 bovine heart ext. contg. cytochromes, phosphatidylinositols, phosphatides,  
 and free phosphatidic acids, esp. in an alc. or aq.  
 alc. soln. A hair tonic contained: 400 mL abs. EtOH, 400 mL  
 H<sub>2</sub>O, 50 g plant lecithin, and the ext. of 250 g fresh beef heart. The  
 beef heart was freed of fat, homogenized with H<sub>2</sub>O, and filtered. The  
 filtrate was heated to boiling, filtered, and the cytochrome-contg. soln.  
 was refrigerated. The residue from the 1st filtration was extd. with 250  
 mL Et<sub>2</sub>O at room temp. for 2 days, filtered, the aq. phase was sepd. and  
 discarded, the Et<sub>2</sub>O was evapd., and the residue was suspended in 150 mL  
 H<sub>2</sub>O. This suspension was mixed with the cytochrome soln., 50 g  
 extd.-purified plant lecithin, 400 mL EtOH, and H<sub>2</sub>O to 1 L. Ascorbic  
 acid, 1% by wt., could be added as a preservative. Expts. with men showed  
 redn. of hair loss and an increase of hair  
 follicles in the growth stage.

ST cytochrome phospholipid hair tonic; alopecia tonic  
 lecithin cytochrome

IT Heart, composition  
 (cytochromes and phospholipids of bovine, hair tonics contg.  
 lecithins and)

IT Lecithins  
 RL: BIOL (Biological study)  
 (hair tonics contg. cytochromes and heart phosphatides and)

IT Cytochromes  
RL: BIOL (Biological study)  
(**hair** tonics contg. phospholipids and lecithins and)  
IT Phosphatides  
**Phosphatidic acids**  
Phosphatidylinositols  
RL: BIOL (Biological study)  
(of beef heart, **hair** tonics contg. cytochromes and lecithins  
and)  
IT **Alopecia**  
(treatment of, with tonics contg. cytochromes and phospholipids and  
lecithins)  
IT **Hair preparations**  
(**growth** stimulants, cytochromes and phospholipids and  
lecithins for)  
IT **Hair preparations**  
(tonics, cytochromes and phospholipids and lecithins for)

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MOST RECENT DERWENT UPDATE: 200314 <200314/DW>  
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/BIX is also provided which comprises both /BI and /ABEX <<<

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L120 ANSWER 1 OF 2 WPIX (C) 2003 THOMSON DERWENT

AN 2002-659475 [71] WPIX

DNC C2002-185505

TI **Hair**-growing agent comprises **phosphatidic** acid as  
active ingredient.

DC D21 E11

IN HONDA, S; KAMIMURA, A; MIMURA, T; TAKAHASHI, T

PA (KYOW) KYOWA HAKKO KOGYO KK

CYC 30  
 PI EP 1232740 A2 20020821 (200271)\* EN 15p A61K007-06 <--  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI TR  
 CA 2371398 A1 20020816 (200271) EN A61K007-06 <--  
 US 2002172657 A1 20021121 (200279) A61K007-75  
 JP 2002316916 A 20021031 (200304) 13p A61K007-06 <--  
 KR 2002067681 A 20020823 (200310) A61K007-06 <--  
 ADT EP 1232740 A2 EP 2002-3132 20020214; CA 2371398 A1 CA 2002-2371398  
 20020212; US 2002172657 A1 US 2002-73113 20020212; JP 2002316916 A JP  
 2002-32421 20020208; KR 2002067681 A KR 2002-8205 20020215  
 PRAI JP 2001-40351 20010216  
 IC ICM **A61K007-06**; A61K007-75  
 ICS **A61K007-08**  
 AB EP 1232740 A UPAB: 20021105  
 NOVELTY - A hair-growing agent comprises, as an active ingredient, a  
**phosphatidic acid**.  
 DETAILED DESCRIPTION - A hair-growing agent comprises, as an active  
 ingredient, a **phosphatidic acid** of formula (I).  
 R1 = alkyl, alkenyl, alkanoyl or alkenoyl  
 When R1 is alkyl or alkenyl, R2 is alkyl, alkenyl, alkanoyl, or  
 alkenoyl. When R1 is alkanoyl or alkenoyl, R2 is alkyl or alkenyl. An  
 INDEPENDENT CLAIM is included for use of **phosphatidic acid** of  
 formula (I) for the preparation of a composition used as a hair growing  
 agent.  
 ACTIVITY - Cell growth promoter.  
 MECHANISM OF ACTION - None given.  
 USE - As hair-growing agent.  
 ADVANTAGE - The hair growing agent comprising **phosphatidic**  
 acid exhibits a significant promoting effect on the hair growth.  
 Dwg.0/0  
 FS CPI  
 FA AB; GI; DCN  
 MC CPI: **D08-B03**; E06-A01; E10-B02D; E10-C04E  
 TECH UPTX: 20021105  
 TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The  
 hair-growing agent also comprises **proanthocyanidin**,  
**tocopherol**, derivatives of **tocopherol**, pantothenic acid,  
 derivatives of pantothenic acid, protein kinase C-specific inhibitors or  
 their salts, and/or biotin.  
 The **proanthocyanidin** is procyanidin B-1, procyanidin B-2,  
 procyanidin B-3, procyanidin C-1, or procyanidin C-2.  
 The **tocopherol** or its derivative is d-alpha-**tocopherol**  
 , dl-alpha-**tocopherol** acetate, d-alpha-**tocopherol**  
 acetate or dl-alpha-**tocopherol** nicotinate.  
 The pantothenic acid or its derivative is calcium pantothenate, sodium  
 pantothenate, D-pantothenyl alcohol, DL-pantothenyl alcohol or pantothenyl  
 ethyl ether. The protein kinase C-specific inhibitor is **calphostin**  
**C**, **hexadecylphosphocholine**, **palmitoyl-DL-**  
**carnitine**, or **polymyxin B**. The hair-growing  
 agent does not comprise minoxidil.  
 ABEX  
 ADMINISTRATION - The agent is percutaneously administered at 0.1-250 mg,  
 preferably 1-100 mg in terms of **phosphatidic acid** per adult once  
 to several times per day.  
 EXAMPLE - A hair-growing composition comprised 1-O-hexadecyl-2-O-  
 methylglyceryl-3-phosphoric acid (0.4%), procyanidin B-2 (1%), ethyl  
 alcohol (70%), 1,3-butylene glycol (3%), N-acetylglutamine isostearyl  
 ester (0.25%), polyoxyethylene (25) glyceryl pyroglutamate isostearate  
 (0.25%). To the mixture was added purified water to make up to 100%. The  
 mixture was made homogeneous with stirring. A test of the effect on hair  
 growth of mice was carried out. Nine-weeks old male C3H/HeSlc mice whose

hair cycle was in the telogen were shaven of the hair on the back. The composition was applied on the shaven part at 2 muL once per day. On the 18th day after the start of the test, the skin on the back of each mouse was cut off and photographed. The percentage of hair grown area to the total area of the skin on the back was calculated to obtain the rate of increased hair-grown area. With the control group having 0% rate of increased hair-grown area, use of hair-growing composition indicated 62% rate of increased hair grown area.

DEFINITIONS - Preferred Definitions: (i)

R1 = alkyl or alkenyl;

R2 = methyl;

(ii)

R1 = alkanoyl or alkenoyl;

R2 = methyl;

(iii)

R1 = alkyl or alkenyl;

R2 = acetyl;

(iv)

R1 = octadecenoyl or hexadecyl;

R2 = methyl;

(v)

R1 = hexadecyl;

R2 = acetyl

L120 ANSWER 2 OF 2 WPIX (C) 2003 THOMSON DERWENT

AN 1992-366925 [45] WPIX

DNC C1992-162970

TI Aq. lotion for strengthening and regeneration of **hair-growth** - comprises ethanol, phospholipid(s) (derived from soya bean oil) oil, and/or grease.

DC D21 E19

PA (LANG-I) LANG E

CYC 1

PI DE 4113346 A 19921029 (199245)\*

A61K007-06 <--

ADT DE 4113346 A DE 1991-4113346 19910424

PRAI DE 1991-4113346 19910424

IC ICM A61K007-06

AB DE 4113346 A UPAB: 19931116

Aq. lotion for strengthening and regenerating hair growth, comprises ethanol, phospholipids (derived from soya bean oil), oil and/or grease. Aq. lotion is in the form of a microemulsion contg. a) approx. 25 vol.%, pref. 5-20 vol.% and esp. approx. 20 vol.% ethanol, b) approx. 3 wt.%, pref. 1-25 wt.% and esp. approx. 2 wt.% soya-phospholipides and c) approx. 5 wt.%, pref. 1-4 wt.% and esp. 3 wt.% oil and/or grease.

Oil and/or grease content is based on (un)satd fatty acids eg palmitic, stearic, oleic, linoleic, linolenic acid. In addn, one or more of up to 5 wt.% **lyso-phosphatidyl** choline and up to 1 wt.% of soya-phospholipid derivs. eg. **phosphatidic** acid, **phosphatidylinositol**, sterol (derivs), **N-acyl-phosphatidyl** -ethanolamine, usual lipid fractions may be added. Other additives include up to approx. 2 vol.% blood dialysate eg. 'Philocell' (RTM and **vitamins** esp. **vitamin A** and/or **vitamin E**, D-panthenol and/or alpha-bisabolol.

USE/ADVANTAGE - Lotion is in the form of v. stable microemulsion which does not separate out during storage.

In an example, compsn. comprising approx. 20 vol.% ethanol, approx. 2 wt.% purified soya-phospholipids contg. max 5% **lyso-phosphatidyl**-choline and max. 1% other phospholipids, max. 3% fatty acid component (comprising 20% palmitic and stearic, 10% oleic, 62% linoleic, 8% linolenic acid), **vitamin E** (acetate), D-panthenol, alpha-bisabolol, max. 2% 'Philoce  
Dwg.O/O

FS CPI  
 FA AB; DCN  
 MC CPI: D08-B03; E05-G09D; E10-C04H; E10-C04L2; E10-E04L2

=> d all abeq tech abex 1126

L126 ANSWER 1 OF 1 WPIX (C) 2003 THOMSON DERWENT  
 AN 2001-211123 [21] WPIX  
 DNC C2001-062732  
 TI Hair growth stimulant comprises a **lysophosphatidic acid** or **phosphatidic acid**.  
 DC B05 D21  
 IN KAMIMURA, A; MATSUOKA, T; TAKAHASHI, T  
 PA (KYOW) KYOWA HAKKO KOGYO KK  
 CYC 94  
 PI WO 2001012141 A1 20010222 (200121)\* JA 39p A61K007-06 <--  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
 NL OA PT SD SE SL SZ TZ UG ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KR KZ LC LK  
 LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG  
 SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
 AU 2000065959 A 20010313 (200134) A61K007-06 <--  
 EP 1214928 A1 20020619 (200240) EN A61K007-06 <--  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI  
 KR 2002020274 A 20020314 (200263) A61K007-06 <--  
 ADT WO 2001012141 A1 WO 2000-JP5542 20000818; AU 2000065959 A AU 2000-65959  
 20000818; EP 1214928 A1 EP 2000-953498 20000818, WO 2000-JP5542 20000818;  
 KR 2002020274 A KR 2002-702106 20020218  
 FDT AU 2000065959 A Based on WO 200112141; EP 1214928 A1 Based on WO 200112141  
 PRAI JP 2000-137711 20000510; JP 1999-231144 19990818  
 IC ICM A61K007-06  
 AB WO 200112141 A UPAB: 20010418  
 NOVELTY - Hair growth stimulant comprises a **lysophosphatidic acid** or **phosphatidic acid** having even numbered and linear carbon chain fatty acids.  
 ACTIVITY - Endocrine. A composition containing 1% **phosphatidic acid** dioleoyl applied daily at 200  $\mu$ l to the back of C3H/HeSlc mice which had the hairs removed electrically showed 73% regrowth after 16 days compared to 0 for a control.  
 MECHANISM OF ACTION - Protein-Kinase-Inhibitor-C.  
 USE - As protein kinase C inhibitors useful as hair growth stimulants.  
 ADVANTAGE - Are specific for protein kinase C and thus have reduced side effects.  
 Dwg.0/0  
 FS CPI  
 FA AB; DCN  
 MC CPI: B05-B01P; B14-D03; B14-R02; D08-B03  
 TECH UPTX: 20010418  
 TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compounds: **Lysophosphatidic acid** or **phosphatidic acid** of formula (I)-(III).  
 R1, R2 = alkyl or alkenyl; and  
 R3, R4 = alkyl, alkenyl or alkynyl.  
 ABEX ADMINISTRATION - Dosage is 0.1-250 (preferably 1-100) mg/day topically.

=> d his

(FILE 'HOME' ENTERED AT 15:18:33 ON 02 MAR 2003)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 15:18:56 ON 02 MAR 2003

L1 STR  
L2 SCR 1838  
L3 50 S L1 NOT L2 SAM  
L4 17232 S L1 NOT L2 FUL  
SAV TEMP L4 VKIM049/A  
L5 STR L1  
L6 22 S L5 CSS SAM SUB=L4  
L7 467 S L5 CSS FUL SUB=L4  
SAV L7 VKIM049A/A  
E PROANTHOCYANIDIN/CN  
L8 4 S E13,E14,E16,E22  
E PROANTHOCYANIDIN  
L9 36 S E3,E4  
L10 32 S L9 NOT L8  
E PROTEIN KINASE C/CN  
L11 3 S E3  
E CALPHOSTIN C/CN  
L12 1 S E3  
E HEXADECYLPHOSPHOCHOLINE/CN  
L13 1 S E3  
E POLYMYXIN B/CN  
L14 1 S E3  
E PALMITOYL-DL-CARNITINE/CN  
L15 2 S E1,E6  
L16 8 S C23H45NO4/MF AND PROPANAMINIUM AND OXOHXADECYL OXY  
L17 3 S L16 NOT (14C OR D/ELS OR LABELED OR T/ELS)  
E TOCOPHEROL/CN  
L18 1 S E3  
E CL-.ALPHA.-TOCOPHEROL/CN  
E DL-.ALPHA.-TOCOPHEROL/CN  
L19 3 S E3  
E D-.ALPHA.-TOCOPHEROL/CN  
L20 1 S E3  
E DL-.ALPHA.-TOCOPHEROL ACETATE/CN  
L21 2 S E3  
E D-.ALPHA.-TOCOPHEROL ACETATE/CN  
L22 1 S E3  
E DL-.ALPHA.-TOCOPHEROL NICOTINATE/CN  
L23 1 S E3

FILE 'HCAPLUS' ENTERED AT 15:30:56 ON 02 MAR 2003

L24 1706 S L7  
E LYSOPHOSPHATIDIC ACID/CT  
E E6+ALL  
L25 1412 S E10+NT OR E11  
L26 2091 S E11/BI OR E12/BI  
E E9+ALL  
L27 6945 S E4  
L28 7976 S E4+NT  
L29 8794 S E4-E8/BI  
L30 10010 S L24-L29  
L31 41 S L30 AND (HAIR OR BALD OR BALDNESS OR BALDING OR ALOPECI? OR H  
L32 700 S L8  
L33 317 S L10  
L34 2105 S PROANTHOCYANIDIN?  
L35 4 S PRO ANTHOCYANIDIN?  
E PROANTHOCYANIDIN/CT  
E E4+ALL  
L36 2288 S E3+NT

L37 3526 S E3-E7/BI  
 L38 7 S L30 AND L32-L37  
 L39 21664 S L11  
 L40 38402 S PROTEIN KINASE C  
 L41 567 S L30 AND L39,L40  
 L42 3127 S L12-L15,L17  
 L43 6015 S CALPHOSTIN? C OR HEXADECYLPHOSPHOCHOLIN? OR POLYMYXIN? B OR P  
 L44 74 S L30 AND L42,L43  
 L45 29 S L41 AND L44  
 L46 3 S L38 AND L44,L45  
 L47 4 S L30 AND ?PROCYANIDIN?  
 L48 5 S L46,L47  
 L49 3 S L48 AND L31  
 L50 15174 S L18-L23  
 L51 168 S L30 AND (L50 OR ?TOCOPHER?)  
 L52 12 S L51 AND L31  
 L53 5 S L51 AND L38  
 L54 5 S L51 AND L44,L45,L47  
 L55 7 S L49,L53,L54  
 L56 3 S L55 AND L31  
 L57 3 S L56 AND L24-L56  
 E HAIR/CT  
 E E3+ALL  
 L58 22417 S E6,E5+NT  
 L59 20226 S E13+NT OR E14+NT OR E15+NT OR E17+NT  
 E E13+ALL  
 E E7+ALL  
 E E15+ALL  
 L60 42 S L30 AND L58-L59  
 L61 3 S L31,L60 AND (L36 OR L37 OR ?PROCYANIDIN?)  
 L62 12 S L31,L60 AND (L50 OR ?TOCOPHER?)  
 L63 5 S L31,L60 AND (L41,L42,L43)  
 L64 14 S L57,L61,L62,L63  
 L65 7 S L64 AND HAIR/TI  
 L66 7 S L64 NOT L65  
 SEL DN AN 1-3  
 L67 4 S L66 NOT E1-E9  
 E TAKAHASHI T/AU  
 L68 1914 S E3-E9  
 E TAKAHASHI TOMOYA/AU  
 L69 46 S E3  
 E TOMOYA T/AU  
 E KAMIMURA A/AU  
 L70 31 S E3,E19  
 E AYAKO K/AU  
 E MATSUOKA T/AU  
 L71 189 S E3,E18  
 E TAKAKO M/AU  
 L72 4 S L30 AND L68-L71  
 L73 3 S L72 NOT MYOCARDIAL/TI  
 E KYOWA/PA,CS  
 L74 8423 S E3,E4  
 E HAKKO/PA,CS  
 L75 5236 S E3,E4  
 E KOGYO/PA,CS  
 L76 71963 S E3,E4  
 L77 20 S L30 AND L74-L76  
 L78 4 S L77 AND L31,L60  
 L79 12 S L65,L67,L73,L78

FILE 'REGISTRY' ENTERED AT 15:46:06 ON 02 MAR 2003

FILE 'HCAPLUS' ENTERED AT 15:46:18 ON 02 MAR 2003

L80 36 S L31,L60 NOT L79  
SEL DN AN 8 18 19 21 21 26 34  
L81 6 S L80 AND E1-E18  
L82 1 S L81 AND (VITAMIN "E" OR ?TOCOPHER? OR ?ENZYM? OR ?CYANIDIN? O  
L83 6 S L81,L82

FILE 'WPIX' ENTERED AT 15:52:56 ON 02 MAR 2003

L84 4170 S (?LYSOPHOSPHATID? OR ?LYSO PHOSPHATID? OR ?PHOSPHATID?)/BIX  
L85 72 S L84 AND (D08-B03 OR D08-B04 OR D08-B05 OR D08-B06 OR A12-V04A  
L86 2 S L84 AND A61P017-14/IC,ICM,ICS,ICA,ICI  
E A61K007-06/IC,ICM,ICS  
L87 17230 S E3-E44  
E A61K007-06/ICA,ICI  
L88 500 S E3-E11  
E A61K007:06/ICI  
L89 1 S E3  
L90 50 S L84 AND L87-L89  
L91 39 S L84 AND (P930 OR 1252)/M0,M1,M2,M3,M4,M5,M6  
L92 89 S L85,L86,L90,L91  
L93 7 S L92 AND ?TOCOPHER?/BIX  
L94 4 S L92 AND V350/M0,M1,M2,M3,M4,M5,M6  
L95 5 S L92 AND (B03-H OR C03-H)/MC  
E TOCOPHEROL/DCN  
E E4+ALL  
L96 560 S E2  
L97 287 S E4  
L98 91 S E10  
L99 1024 S E16  
L100 3661 S E18 OR 0179/DRN  
E TOCOPHEROL/DCN  
E E13+ALL  
L101 507 S E2 OR 1163/DRN  
L102 522 S E4 OR 0990/DRN  
L103 526 S E6 OR 1693/DRN  
L104 91 S E8  
L105 7 S L92 AND (?VITAMIN?(S)"E")/BIX  
L106 7 S L92 AND L96-L104  
L107 13 S L93-L95,L105,L106  
L108 1 S L92 AND (L34/BIX OR L35/BIX)  
L109 0 S L92 AND L37  
E PROANTHOCYANIDIN/DCN  
E E4+ALL  
L110 58 S E2  
L111 31 S E4  
L112 0 S L92 AND L110,L111  
L113 13 S L107,L108  
L114 222 S L43/BIX  
E CALPHOSTIN/DCN  
E HEXADECYLPHOSPHOCHOLINE/DCN  
E E2+ALL  
L115 6 S E2  
E POLYMYXIN/DC  
E POLYMYXIN/DCN  
E E4+ALL  
L116 109 S E2  
E CARNITINE/DCN  
E PALMITOYL CARNITINE/DCN  
L117 1 S L92 AND L114-L116  
L118 13 S L113,L117  
L119 5 S L118 AND (HAIR OR ALOPECIA)/TI  
SEL DN AN 1 4  
L120 2 S L119 AND E1-E4



FILE 'WPIX' ENTERED AT 16:07:43 ON 02 MAR 2003

L121 8 S L84 AND (TAKAHASHI ? OR KAMIMURA ? OR MATSUOKA ?)/AU  
L122 0 S L84 AND (TOMOYA ? OR AYAKO ? OR TAKAKO ?)/AU  
L123 2 S L121 AND (KYOWA? OR HAKKO? OR KOGYO?)/PA  
L124 8 S L121,L123  
L125 2 S L124 AND L92  
L126 1 S L125 NOT L120  
L127 6 S L124 NOT L120,L125  
SET COST ON

SI 2 PN=DE 4113346  
?t sl/5/all

1/5/1 (Item 1 from file: 345)  
DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat  
(c) 2002 EPO. All rts. reserv.

10788636  
Basic Patent (No,Kind,Date): DE 4113346 A1 921029 <No. of Patents: 001>

PATENT FAMILY:  
GERMANY (DE)

Patent (No,Kind,Date): DE 4113346 A1 921029  
ZUBEREITUNG ZUR KRAEFTIGUNG UND REGENERATION DES HAARWUCHSES (German)  
Patent Assignee: LANG ERICH (DE)  
Priority (No,Kind,Date): DE 4113346 A 910424  
Applic (No,Kind,Date): DE 4113346 A 910424  
IPC: \* A61K-007/06  
CA Abstract No: ; 117(26)257979B  
Derwent WPI Acc No: ; C 92-366925  
Language of Document: German

1/5/2 (Item 1 from file: 351)  
DIALOG(R)File 351:Derwent WPI  
(c) 2002 Thomson Derwent. All rts. reserv.

009239507  
WPI Acc No: 1992-366925/\*199245\*  
XRAM Acc No: C92-162970

**Aq. lotion for strengthening and regeneration of hair-growth - comprises ethanol, phospholipid(s) (derived from soya bean oil) oil, and/or grease**

Patent Assignee: LANG E (LANG-I)  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4113346	A	19921029	DE 4113346	A	19910424	199245 B

Priority Applications (No Type Date): DE 4113346 A 19910424

Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
DE 4113346 A A61K-007/06

Abstract (Basic): DE 4113346 A

Aq. lotion for strengthening and regenerating hair growth, comprises ethanol, phospholipids (derived from soya bean oil), oil and/or grease. Aq. lotion is in the form of a microemulsion contg. a) approx. 25 vol.%, pref. 5-20 vol.% and esp. approx. 20 vol.% ethanol, b) approx. 3 wt.%, pref 1-25 wt.% and esp. approx. 2 wt.% soya-phospholipides and c) approx. 5 wt.%, pref. 1-4 wt.% and esp. 3 wt.% oil and/or grease.

Oil and/or grease content is based on (un)satd fatty acids eg palmitic, stearic, oleic, linoleic, linolenic acid. In addn, one or more of up to 5 wt.% lyso-phosphatidyl choline and up to 1 wt.% of soya-phospholipid derivs. eg. phosphatidic acid, phosphatidylinositol, sterol (derivs), N-acyl-phosphatidyl-ethanolamine, usual lipid fractions may be added. Other additives include up to approx. 2 vol.% blood dialysate eg. 'Philocell' (RTM and vitamins esp. vitamin A and/or vitamin E, D-panthenol and/or alpha-bisabolol.

USE/ADVANTAGE - Lotion is in the form of v. stable microemulsion which does not separate out during storage.

In an example, compsn. comprising approx. 20 vol.% ethanol, approx. 2 wt.% purified soya-phospholipids contg. max 5% lyso-phosphatidyl-choline and max. 1% other phospholipids, max. 3% fatty acid component (comprising 20% palmitic and stearic, 10% oleic, 62% linoleic, 8% linolenic acid), vitamin E (acetate), D-panthenol, alpha-bisabolol, max. 2% 'Philocell

Dwg.O/O

Title Terms: AQUEOUS; LOTION; STRENGTH; REGENERATE; HAIR; GROWTH; COMPRISE;  
ETHANOL; PHOSPHOLIPID; DERIVATIVE; SOY; BEAN; OIL; OIL; GREASE  
Derwent Class: D21; E19  
International Patent Class (Main): A61K-007/06  
File Segment: CPI

L24 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1997:655388 CAPLUS  
 DN 127:298525  
 TI Hair growth compositions comprising a specific inhibitor of protein kinase C  
 IN Takahashi, Tomoya; Yokoo, Yoshiharu; Kamiya, Toshikazu; Shirai, Akio; Tamaoki, Tatsuya  
 PA Kyowa Hakko Kogyo Co., Ltd., Japan  
 SO Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM A61K007-06  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 797978	A2	19971001	EP 1997-105023	19970325
	EP 797978	A3	19971029		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 09315947	A2	19971209	JP 1997-59404	19970313
	CA 2200826	AA	19970929	CA 1997-2200826	19970324
	US 6506370	B1	20030114	US 1997-826072	19970324
	TW 464507	B	20011121	TW 1997-86103848	19970326
	AU 9716611	A1	19971002	AU 1997-16611	19970327
	AU 718309	B2	20000413		
	US 2003086885	A1	20030508	US 2002-309047	20021204
PRAI	JP 1996-75903	A	19960329		
	US 1997-826072	A1	19970324		

AB A safe and effective hair-growing agent compn. a protein kinase C-specific inhibitor such as polymyxin B is described. Thus, a hair tonic contained EtOH 55, 1,3-butylene glycol 7, N-acetylglutamine isostearyl ester 0.5, and PEG glyceryl pyroglutamate isostearate diester 0.25. To this was added a soln. of 0.3 g polymyxin B sulfate in 36.95 g water. The hair-growth promoting activity of this compn. was demonstrated mouse hair-follicle cell cultures.

ST protein kinase C inhibitor hair growth

IT Hair preparations

(growth stimulants; hair growth compns. comprising protein kinase C inhibitor)

IT 141436-78-4, Protein kinase C

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(hair growth compns. comprising protein kinase C inhibitor)

IT 1404-26-8, Polymyxin B 1405-20-5, Polymyxin B sulfate 1935-18-8, Palmitoyl DL-carnitine 6865-14-1 58066-85-6, Hexadecylphosphocholine 121263-19-2, Calphostin C

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair growth compns. comprising protein kinase C inhibitor)

=>

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:136978 CAPLUS  
 DN 134:183282  
 TI **Hair growth** stimulants containing lysophosphatidic  
 acids and/or phosphatidic acids  
 IN Takahashi, Tomoya; Kamimura, Ayako; Matsuoka, Takako  
 PA Kyowa Hakko Kogyo Co., Ltd., Japan  
 SO PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-06  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001012141	A1	20010222	WO 2000-JP5542	20000818
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1214928	A1	20020619	EP 2000-953498	20000818
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
PRAI	JP 1999-231144	A	19990818		
	JP 2000-137711	A	20000510		
	WO 2000-JP5542	W	20000818		
OS	MARPAT 134:183282				
AB	<b>Hair growth</b> stimulants characterized by contg. as the active ingredient at least one member selected from among lysophosphatidic acids and phosphatidic acids the fatty acid group moiety of which consists exclusively of fatty acid groups having even-numbered and linear carbon chains. A <b>hair growth</b> stimulant compn. contg. monopalmitoyllysophosphatidic acid 0.3, grape-derived proanthocyanidin 3, ethanol 70, 1,3-butylene glycol 3, N-acetylglutamineisostearate 0.25, polyoxyethylene(25)glyceryl pyroglutamic acid diisostearate ester 0.25 % was prepd. and tested for its <b>hair growth</b> -stimulating effect.				
ST	<b>hair growth</b> stimulant lysophosphatidic acid ester;				
	phosphatidic acid ester <b>hair growth</b> stimulant				
IT	Phosphatidic acids				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(esters; <b>hair growth</b> stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters)				
IT	<b>Hair</b> preparations				
	(growth stimulants; <b>hair growth</b> stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters)				
IT	Lysophosphatidic acids				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(hair growth stimulants contg. lysophosphatidic acid and/or phosphatidic acid esters)				
IT	Proanthocyanidins				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(hair growth stimulants contg. lysophosphatidic				

acid and/or phosphatidic acid esters and proanthocyanidins)

IT Tocopherols  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (hair growth stimulants contg. lysophosphatidic  
 acid and/or phosphatidic acid esters and tocopherols)

IT 14268-17-8, Dioleoyl phosphatidic acid 22002-85-3,  
 1-Palmitoyllysophosphatidic acid 79806-85-2, Dilauroyl phosphatidic acid  
 RL: BUU (Biological use, unclassified); BIOL (Biological study);  
 USES (Uses)  
 (hair growth stimulants contg. lysophosphatidic  
 acid and/or phosphatidic acid esters)

IT 20315-25-7, Proanthocyanidin B1 23567-23-9, Proanthocyanidin B3  
 29106-49-8, Proanthocyanidin B2 37064-30-5, Proanthocyanidin c1  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (hair growth stimulants contg. lysophosphatidic  
 acid and/or phosphatidic acid esters and proanthocyanidins)

IT 1404-26-8, Polymyxin B 1935-18-8, Palmitoyl-carnitine 58066-85-6,  
 Hexadecylphosphocholine 121263-19-2, Calphostin C  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (hair growth stimulants contg. lysophosphatidic  
 acid and/or phosphatidic acid esters and protein kinase C inhibitors)

IT 58-95-7, d-.alpha.-Tocopherol acetate 59-02-9, d-.alpha.-Tocopherol  
 2074-53-5, dl-.alpha.-Tocopherol 51898-34-1, dl-.alpha.-Tocopherol  
 nicotinate 52225-20-4, dl-.alpha.-Tocopherol acetate  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (hair growth stimulants contg. lysophosphatidic  
 acid and/or phosphatidic acid esters and tocopherols)

IT 141436-78-4, Protein kinase C  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitor; hair growth stimulants contg.  
 lysophosphatidic acid and/or phosphatidic acid esters and protein  
 kinase C inhibitors)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
 (1) Kastell; JP 57165309 A CAPLUS  
 (2) Kastell; EP 60933 A CAPLUS  
 (3) Kastell; US 4515778 A 1985 CAPLUS  
 (4) Kyowa Hakko Kogyo Co Ltd; JP 09315947 A CAPLUS  
 (5) Kyowa Hakko Kogyo Co Ltd; EP 768079 A CAPLUS  
 (6) Kyowa Hakko Kogyo Co Ltd; WO 9600561 A 1996 CAPLUS  
 (7) Kyowa Hakko Kogyo Co Ltd; EP 797978 A 1997 CAPLUS  
 (8) Lang; DE 4113346 A 1992 CAPLUS  
 (9) Lion Corporation; JP 5927809 A  
 (10) Lion Corporation; EP 102534 A 1984 CAPLUS

IT 22002-85-3, 1-Palmitoyllysophosphatidic acid  
 RL: BUU (Biological use, unclassified); BIOL (Biological study);  
 USES (Uses)  
 (hair growth stimulants contg. lysophosphatidic  
 acid and/or phosphatidic acid esters)

RN 22002-85-3 CAPLUS  
 CN Hexadecanoic acid, 2-hydroxy-3-(phosphonoxy)propyl ester (9CI) (CA INDEX  
 NAME)

